MASSIMO MSU 800



Owner's Manual

READ THIS MANUAL CAREFULLY! It contains important safety information.

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



This UTV should not be ridden by anyone under 16 years of age.

INTRODUCTION

Congratulations on your purchase of the MASSIMO MSU 800 UTV. It represents the result of many years of experience in the production of fine sporting, UTVs, and pacesetting racing machines. With the purchase of this UTV, you can now appreciate the high degree of craftsmanship and reliability. This manual will provide you with a good basic understanding of the features and operation of this UTV. This manual includes important safety information. It provides information about special techniques and skills necessary to ride your UTV. It also includes basic maintenance and inspection procedures. If you have any questions regarding the operation or maintenance of your UTV, please consult the dealer.

AN IMPORTANT SAFETY MESSAGE

- READ THIS MANUAL TOGETHER WITH TIPS FOR THE UTV RIDER CARE-FULLY AND COMPLETELY BEFORE OPERATING YOUR UTV. MAKE SURE YOU UNDERSTAND ALL IN-STRUCTIONS.
- PAY CLOSE ATTENTION TO THE WARNING AND CAUTION LABELS ON THE UTV.
- NEVER OPERATE A UTV WITHOUT PROPER TRAINING OR INSTRUCTION.
- THIS UTV, AND ANY OTHER UTV OVER 90cc, SHOULD NOT BE RIDDEN BY ANYONE UNDER 16 YEARS OF AGE.

IMPORTANT MANUAL INFORMATION

FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

Particularly important information is distinguished in this manual by the following notations:



The Safety Alert Symbol means ATTENTION!

YOUR SAFETY IS INVOLVED!



Failure to follow **WARNING** instructions could result in severe injury or death to the machine operator, a bystander or a person inspecting or repairing the machine.

CAUTION:

A CAUTION indicates special precautions that must be taken to avoid damage to the machine.

NOTE:

A NOTE provides key information to make procedures easier or clearer.

IMPORTANT NOTICE

Curve speed must be smaller than 30km/h.

This UTV has been passed and the EC certificate, it can run on any public street, road, and highway.

Please check your local riding laws and regulations before operating this UTV.

When the temperature is below -20° C (-4F), please park the UTV in the place where the temperature is higher than -20° C (-4F). After the UTV has warmed up, the UTV can be started. Please see page 6-3 on the warming up process.

When the temperature is higher than 38° C (100°F), and when you park the UTV after it run at high speed, please keep engine running for 3 minutes at idle mode and make sure that the radiator fan still work for 3 minutes to prevent cooling water from boiling. Then turn off the power switch to save the battery.

When you park the UTV and cut off the engine, please turn off the ignition switch to stop meter displaying. With EFI system use for this UTV, the electric fuel pump in the fuel tank can work when the meter displays. If the fuel pump work for a long time ,it will result in battery power loss and failure to electric start.

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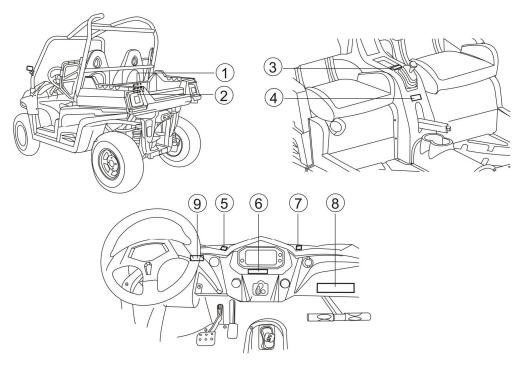
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LOCATION OF THE WARNING AND SPECIFICATION LABELS



Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle.

Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your dealer.





MINIMUM:

AWARNING

IMPROPER TIRES, TIRE PRESSURE, OR OVERLOADING can cause loss of control resulting in SEVERE INJURY OR DEATH.

RECOMMENDED:FRONT: 140kPa,{.70kgf/cm}:20 psi

140kPa,{.70kgf/cm}:20 psi FRONT: 126kPa,{.64kgf/cm}:18 psi

126kPa,{.64kgf/cm}:18 psi REAR:

MAXIMUM WEIGHT CAPACITY

INCLUDING DRIVER, PASSENGER, CARGO, AND ACCESSORIES: 4 X 4 is 661LBS. (300kg)

Reduce speed and allow greater distance for braking when carrying cargo. Overloading or carrying tall, off-center, or unsecured loads will increase your risk of losing control. Loads should be centered and carried as low as possible in box. For stability on rough or hilly terrain, reduce speed and cargo. Be careful if load extends over the side of the box.

Read Owner's Manual for more detailed loading information.





NEVER CARRY A PASSENGER UNDER AGE 16

PASSENGER

NEVER RIDE AFTER

ALCOHOL

AWARNING

PASSENGER SAFETY

To reduce the risk of SEVERE INJURY or DEATH NEVER carry a passenger under age 16 or too small to firmly plant feet on the floor and securely grasp hand holds. THE PASSENGER MUST ALWAYS:

- NEVER CARRY
 MORE THAN ONE

 wear seat belt.
 use an approve
 - use an approved helmet and protective gear.
 - securely grasp hand holds and plant feet firmly on the floor.
 - tell operator to slow down or stop if uncomfortable-get off and walk if conditions require.
 - keep hands and feet inside vehicle at all times.
 - watch for branches, brush, and other hazards that could enter vehicle.



ACAUTION

- To avoid transmission damage, shift only when vehicle is stationary and at idle.
- When vehicle is stopped, place brake lever in the parking.

APPLY BRAKE TO START



AWARNING



Operating this vehicle if you are under the age of 16 increases your chance of severe injury or death.

NEVER operate this vehicle if you are under age 16 or without a valid driver's license.



AWARNING

Improper Operation Can Cause This Vehicle to Overturn and Lead to Serious Injury or Death.

This vehicle handles differently than cars, trucks or other vehicles.

In order to avoid overturns:

- avoid sharp turns.
- never turn while applying heavy throttle.
- turn speed less than 30km/h.
- never make abrupt steering maneuvers.
- operate at speeds appropriate for your skills, the conditions and the terrain.
- DO NOT do power slides, "donuts", jumps or other driving stunts.



AWARNING

- ALWAYS WEAR YOUR SEAT BELT and make sure passenger wears seat belt.
- ALWAYS SECURE CAB NETS
- VEHICLE OVERTURN could cause severe injury or death.
- The cab frame is not designed or intended to provide rollover protection.



AWARNING

Improper vehicle use can result in SEVERE INJURY or DEATH

NEVER Operate:

- without first viewing safety video and quick start guide.
- with more than one passenger.
- on hills steeper than 15 degrees.
- on paved surfaces pavement may seriously affect handling and control

ALWAYS:

- keep hands and feet inside vehicle.
- reduce speed and use extra caution when carrying a passenger.
- operate slowly in reverse avoid sharp turns or sudden braking.
- make sure passenger reads and understands all safety labels.
- watch for branches or other hazards that could enter vehicle.

LOCATE AND READ OWNER'S MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS. IF OWNER'S MANUAL IS MISSING. CONTACT YOUR DEALER FOR A REPLACEMENT.







9

A WARNING

- Max speed less than 65km/h.
- Turn speed less than 30km/h.



This utility vehicle handles differently from other vehicles including cars and UTVs.

SEVERE INJURY OR DEATH can result if you do not follow these instructions:

- Read this manual and all labels carefully and follow the operating procedures described.
- This vehicle is designed to carry the driver and one passenger.

NEVER CARRY PASSENGERS IN THE CARGO BED.

- Always be sure the driver and passenger are wearing seat belts.
- Never give a ride to a passenger who is too small to reach and hold the handgrip fixed before the seat.
- Always avoid operating the vehicle on any paved surfaces, including sidewalks, driveways, parking lots, and streets.
- Driving in the slimy ground and sands is prohibited.
- Never operate this vehicle without wearing an approved motorcycle helmet that fits properly. You should also wear eye protection (goggles or a face shield), gloves, over-the-ankle boots, long-sleeved shirt or jacket, and long pants.
- Never consume alcohol or drugs before or while operating this vehicle.
- Never operate at speeds too fast for your skills or the conditions. Always go at a speed that is proper for the terrain, visibility, operating conditions, and your experience.
- Never attempt jumps of other stunts.
- Always inspect your vehicle each time you use it to be sure it is in safe operating condition,

- Always follow the inspection and maintenance procedures and schedules described in this manual.
- Always keep both hands, arms, feet, and legs inside the vehicle at all times during operation.
 Keep your feet on the floorboard. Never hold onto the enclosure. Otherwise, your hand could be injured if it is caught between the enclosure and an obstacle outside the vehicle.
- Always keep both hands on the steering wheel when driving.
- Never wrap your thumbs and fingers around the steering wheel. This is particularly important when driving in rough terrain. The front wheels will move right and left as they respond to the terrain, and this movement will be felt in the steering wheel. A sudden jolt could wrench the steering wheel around, and your thumbs or fingers could be injured if they are in the way of the steering wheel spokes.
- Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when driving the vehicle.
- Never operate on excessively rough, slippery, or loose terrain until you have learned and practiced the skills necessary to control the vehicle on such terrain. Always be especially cautious on these kinds of terrain.
- Never turn at excessive speed. Practice turning at slow speeds before attempting to turn at faster speeds. Do not attempt turns on steep inclines.
- Never operate the vehicle on hills that are too steep for it or for your abilities. Go straight up and down hills where possible. Maximum slope angle: 15°.
- Never operate on hills that are slippery or ones where you will not be able to see far enough ahead of you. Never go over the top of a hill at speed if you cannot see what is on other side.

- Always follow proper procedures for going uphill. If you lose control and cannot continue up a hill, back down the hill with the engine in reverse gear. Use engine braking to help you go slowly. If necessary, use the brakes gradually to help you go slowly.
- Always check terrain before going down hills. Go as slowly as possible. Never go down a hill at high speed.
- Always check for obstacles before operating in a new area.
- Never operate the vehicle in fast flowing water or water deeper than the floorboards on this
 model. Remember that wet brakes may have reduced stopping ability. Test your brakes after
 leaving water. If necessary, apply the brake several times to let friction dry out the linings.
- Always be sure there are no obstacles or people behind you when you operate in reverse.
 When it is safe to proceed in reverse, go slowly.
- Do not brake abruptly when carrying loads in the cargo bed.
- Always use the size and type of tires specified in this manual.
- Always maintain proper tire pressure as described in this manual.
- Never exceed the stated load capacity. Cargo should be as far forward in the bed as possible, and distributed evenly from side to side. Be sure cargo is secured so that it cannot move around during operation. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer. Allow greater distance for braking.

WARNING

POTENTIAL HAZARD

Improper handling of gasoline.

WHAT CAN HAPPEN

Gasoline can catch fire and you could be burned.

HOW TO AVOID THE HAZARD

Always turn off the engine when refueling. Do not refuel right after the engine has been running and is still very hot. Do not spill gasoline on the engine or exhaust pipe (or muffler) when refueling. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot light of water heaters and clothes dryers.

When transporting the vehicle in another vehicle, be sure it is kept in an upright position. Otherwise, fuel may leak out of the carburetor or fuel tank.

WHAT CAN HAPPEN

Gasoline is poisonous and can cause injuries.

HOW TO AVOID THE HAZARD

If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.

WARNING

POTENTIAL HAZARD

Starting or running the engine in a closed area.

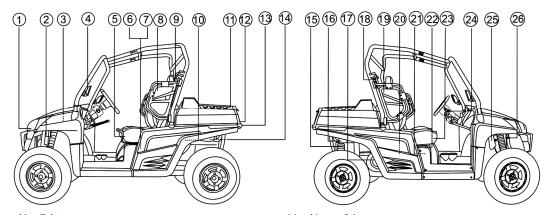
WHAT CAN HAPPEN

Exhaust fumes are poisonous and may cause loss of consciousness and death within a short time.

HOW TO AVOID THE HAZARD

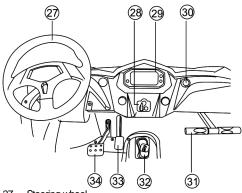
Always operate your vehicle in an area with adequate ventilation.

DESCRIPTION AND VEHICLE IDENTIFICATION



- Headlights
- Front shock absorber assembly
- Brake fluid reservoir
- Rear mirror
- Driver seat
- Batterv
- Fuses
- Left shoulder protection plate
- Driver seat belt
- 10. Air filter element
- 11. Cargo bed
- 12. Tail/brake lights/rear turning light
- 13. Rear reflector

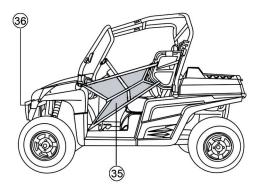
- 14. License light
- 15. Rear shock absorber assembly
- 16. Spark arrester
- 17. CVT-belt case
- 18. Passenger seat belt
- Right shoulder protection plate
- 20. Spark plug21. Oil filter cartridge
- 22. Fuel tank cap
- 23. Switch lock assy
- 24. Passenger seat
- Coolant reservoir
- 26. Radiator cap



- 27. Steering wheel
- 28. On-Command four-wheel-drive and differential lock switches
- 29. Multi-function display gauge
- 30. Auxiliary DC jack
- 31. Passenger handrail
- 32. Drive select lever
- 33. Accelerator pedal
- 34. Brake pedal
- 35. Cab nets.
- 36. Front turning light

NOTE:

The vehicle you have purchased may differ slightly from those in the figures of this manual.



WARNING

To protect drivers and passengers' arm, leg and feet, make sure the cab nets is in function before driving.

Identification Number Records

Record the Vehicle Identification Number and model label information in spaces provided for assistance when ordering spare parts from a dealer or for reference in case the vehicle is stolen.

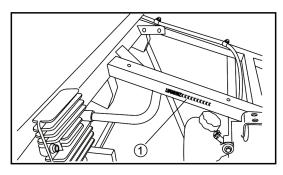
1.VEHICLE IDENTIFICATION NUMBER:				

2.MODEL LABEL INFORMATION

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Vehicle Identification Number

The Vehicle Identification Number is stamped into the frame.



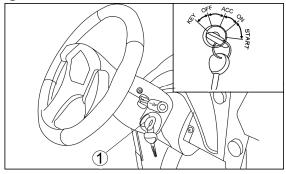
Vehicle identification number

NOTE:

The vehicle identification number is used to identify your vehicle.

CONTROL FUNCTIONS

Ignition Switch



1. Ignition Switch

Functions of the respective switch positions are as follows:

ON:

All electrical circuits are supplied with power, and the headlights and taillights come on when the light switch is on.

OFF:

All electrical circuits are switched off. The key can be removed in this position.

START:

The electric starter is engaged by turning and holding the key in this position. Release the key when the engine starts.

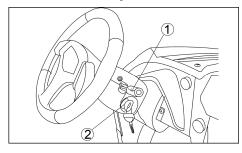
KEY:

Turning the steering wheel can lock the direction, while unplugging the key.

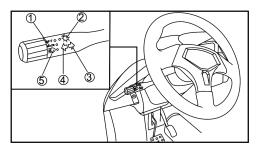
CAUTION:

- Do not operate the electric starter continuously for more than 5 seconds, or starter damage could occur. Wait at least 5 seconds between each operation of the electric starter to let it cool.
- Do not turn the key to the "START" position with the engine running, or damage to the electric starter can result.
- See starting instructions prior to starting the engine. (See pages 6-1—6-3 for details.)

Switch Lock Assy

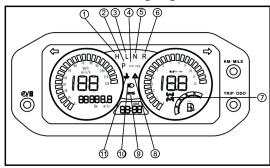


1. Horn switch 2. Main switch



- 1. Position light switch 2. Headlight switch 3. Right-turn signal
- 4. Left-turn signal 5. Head light

Indicator and Warning Lights



- 1. High-range indicator light "H"
- 2. Parking brake indicator light "P"
- 3. Low-range indicator light "L"
- 4. On-Command differential lock indicator "DIFF. LOCK"
- 5. Neutral indicator light "N"
- 6. Reverse indicator light "R"
- 7. On-Command four-wheel-drive indicator "\beta"/ "\beta"
- 8. Emergency indicator
- 9. Position light indicator
- 10. High beam indicator
- 11. Coolant temperature warning light "♣"

Low-Range Indicator Light "L"

This indicator light comes on when the drive select lever is in the "L" position.

Parking Brake Indicator Light "P"

This indicator light comes on when the parking brake is applied.

High-Range Indicator Light "H"

This indicator light comes on when the drive select lever is in the "H" position.

On-Command Differential Gear Lock Indicator Light "DIFF. LOCK"

This indicator light in the display come on when the "UNLOCK" switch in the "On-Command Four-Wheel-Drive and Differential Gear Lock Switches" is not set to

"—UNLOCK" position(see pages 4-12). At this moment, rear differential on the rear gear case is locked and the rear differential can not work. Please keep this indicator light coming on when drive on the muddy off-road.

NOTE:

When the rear differential is set up at "DIFF. LOCK' position and the ignition switch is turned on, the light 'DIFF.LOCK' will be on (red) all the time.

When the road is in good condition for using rear differential only, please set up the drive mode as '2WD' first, then turn the handle to the right side, then press "UNLOCK" button to unlock the rear differential "—" and the light will turn off.

Neutral Indicator Light "N"

This indicator light comes on when the drive select lever is in the "N" position.

Reverse Indicator Light "R"

This indicator light comes on when the drive select lever is in the "R" reverse position.

NOTE:

If the indicator light flashes under any other circumstances or the speedometer does not show the speed while riding, have a dealer check the speed sensor circuit.

On-Command Four-Wheel-Drive Indicator "뭐"/ "뭐"

The On-Command four-wheel-drive indicator "□" comes on when the On-Command four-

wheel-drive switch is set to the "4WD" position.

NOTE:

 Due to the synchronizing mechanism in the differential gear case, the four-wheeldrive indicator may not come on until the vehicle starts moving.

Coolant Temperature Warning Light " ... "

When the coolant temperature reaches a specified level, this light comes on to warn that the coolant temperature is too hot. If the light comes on during operation, stop the engine as soon as it is safe to do so and allow the engine to cool down for about 15 minutes.

CAUTION:

- The engine may overheat if the vehicle is overloaded. If this happens, reduce the load to specification.
- After restarting, make sure that the light is out. Continuous use while the light is on may cause damage to the engine.

High beam indicator

The light being on means headlight is at high beam mode.

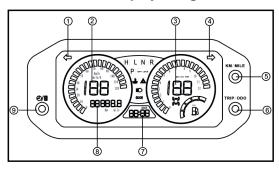
Position light indicator

The light being on means that the position light fixed in the front headlight has been turned on.

Emergency indicator

The light being on means emergency lamp is on.

Multi-Function Display Gauge



- 1. Left turn indicator
- 2. Speedometer
- 3. Tachometer
- 4. Right turn indicator
- 5. Metric/mile button
- 6. "TRIP/ODO" button
- 7. Clock/Hour/ fault code meter
- 8. Odometer/Trip meter A / Trip meter B
- 9. Clock/Hour/ fault code reset button " \bigcirc ""," \bigcirc "

The multi-function meter unit is equipped with the following:

- Speedometer (which shows the riding speed)
- Odometer (which shows the total distance traveled)
- Two trip meters (which show the distance traveled since they were last set to zero)
- Clock
- Hour meter (which shows the total time the key has been turned to "ON")
- Fault code meter (To display the faults of Electronic Fuel Injection system)

Odometer and Trip Meter Modes

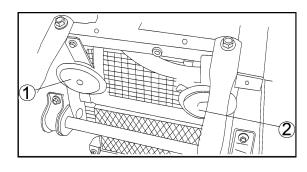
Pushing the "TRIP/ODO" button switches the display between the odometer mode "ODO" and the trip meter modes "A" and "B" in the following order:

 $ODO \rightarrow TRIP A \rightarrow TRIP B \rightarrow ODO$

To reset a trip meter, select it by pushing the "TRIP/ODO" button, and then push the "TRIP/ODO" button for at least three seconds. The trip meters can be used to estimate the distance that can be traveled with a full tank of fuel. This information will enable you to plan future fuel stops.

NOTE:

Holding in the "TRIP/ODO" button and then turning the key to "ON" switches the display between "mph" and "km/h".



Front R horn

2. Front L horn

Clock Mode

Pushing the "O"/" " button switches the display between the clock mode "CLOCK" and the hour meter mode "HOUR" in the following order:

CLOCK→HOUR→CLOCK

To Set the Clock

- 1. Set into the clock mode.
- Press the watch button for 3-5 seconds.
- Press the "KM/MILE" button to set the hours.
- Press the "TRIP/ODO" button to set the minutes.
- Press the watch button for 3-5 seconds, and then release it, the clock will begin to work.

Fault Codes Display Of Electronic Injection System

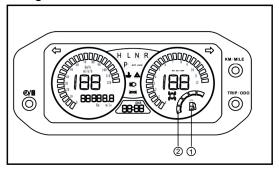
When the faults come out, meter will display the fault codes to guide the repair.

See attachment for faults code (page 11-1)

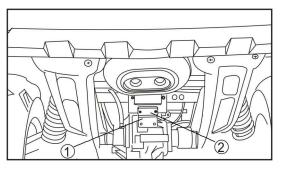
When the fault code is confirmed and has been repaired, you just need to press the " \bigcirc "/" \boxtimes " button, meter will go back to clock mode.

Fuel Gauge

The fuel gauge will indicate the fuel volume. As the fuel is running out, the indicator will turn green into red, Vice versa.



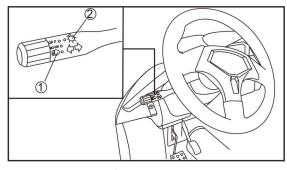
1. Fuel level warning indicator 2. Fuel meter



1. Rear license bracket

2. Rear license light

Switches



1. Light switch "OFF/ □ ≥ 2. Light switch "OFF □ ' "

Set the switch to "Û\notine "to turn on the low beam and the taillights.

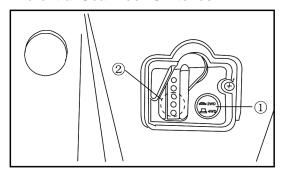
Set the switch to " \bigoplus " to turn on the high beam and the taillights.

Set the switch to "OFF" to turn off all lights.

CAUTION:

Do not use the headlights with the engine turned off for an extended period of time. The battery may discharge to the point that the starter motor will not operate properly. If this should happen, remove the battery and recharge it.

On-Command Four-Wheel-Drive and Differential Gear Lock Switches



- 1. On-Command four-wheel -drive switch "2WD"/ "4 WD"
- Differential gear lock switch "UNLOCK"/ "2WD"

This vehicle is equipped with an On command four—wheel-drive switch "2WD"/"4WD" and a differential gear lock switch "2WD"/
UNLOCK"

Select the appropriate drive according to terrain and the conditions.

- Only rear wheels have differential lock mechanism.
- Two-wheel drive ("2WD/DIFF-LOCK"):
 Power is sup- plied to the rear wheels only With the rear wheels differential gear locked (red light "DIFF. LOCK" is on,) the two rear wheels turn at the same speed regardless of traction.
- Four-wheel drive ("4WD/DIFF-LOCK"): Power is supplied to the rear and front wheels. With the rear wheels' differential gear locked (red light "DIFF. LOCK" is on,) the two rear wheels turn at the same speed regardless of traction.
- Two-wheel drive with differential gear ("2WD- Differential"): Power is supplied to

the rear wheels only. With the differential gear of rear wheels unlocked (red light "DIFF.LOCK" is off,) the two rear wheels can turn at different speed.

▲ WARNING

POTENTIAL HAZARD

Changing from 2WD to 4WD or from 2WD to 2WD-Differential UNLOCK, or vice-versa while the vehicle is moving.

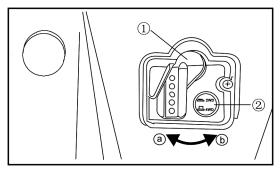
WHAT CAN HAPPEN

The vehicle handles differently in 4WD than in 2WD and in 2WD- Differential UNLOCK in some circumstances. Changing from 2WD to 4WD or from 2WD to 2WD-Differential UNLOCK, or vice-versa while moving may cause the vehicle to unexpectedly handle differently. This could distract the operator and increase the risk of losing control and an accident.

HOW TO AVOID THE HAZARD

Always stop the vehicle before changing from 2WD to 4WD or from 2WD to 2WD-Differential UNLOCK, or vice-versa.

On-Command Four-Wheel-Drive Switch "2WD/4WD"



- 1. Select lever
- 2. On-Command four -wheel-drive switch "2WD/4WD"

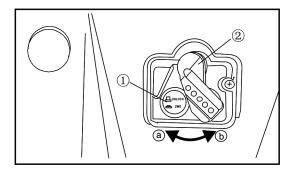
To change from 2WD to 4WD

stop the vehicle, be sure the select lever is set to position[®], and then set the switch to "4WD". When the vehicle is in 4WD, the 4WD indicator "H" will come on in the multi-function display.

To change from 4WD to 2WD

stop the vehicle, and then set the switch to "2WD". the 4WD indicator "" will go out in the multi-function display.

On-Command Differential Gear Lock Switch "2WD/UNLOCK"



- 1. On-Command differential lock switch "2WD/UNLOCK"
- Select lever

To unlock the differential gear in 2WD Stop the vehicle, make sure the On-Command four-wheel-drive switch is set to "2WD", move the select lever to position®, and then set the switch to "UNLOCK". the differential gear is unlocked, the differential gear lock indicator light ("DIFF. LOCK") will go out.

At this time, with rear differential lock on the rear bridge unlocked, the rear differential starts to work.

▲ WARNING

POTENTIAL HAZARD

Riding too fast while the vehicle is in 4WD-LOCK.

WHAT CAN HAPPEN

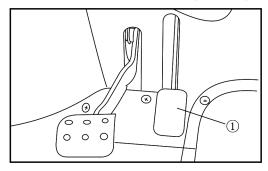
All wheels turn at the same speed when the differential is locked, so it takes more effort to turn the vehicle. The amount of effort required is greater the faster you go. You may lose control and have an accident if you cannot make a sharp enough turn for the speed you are traveling.

HOW TO AVOID THE HAZARD

Always ride at a slow speed when the vehicle is in 4WD-LOCK, and allow extra time and distance for maneuvers.

Accelerator Pedal

Press the accelerator pedal down to increase engine speed. Spring pressure returns the pedal to the rest position when released. Always check that the accelerator pedal returns normally before staring the engine.



1. Accelerator pedal

Before starting the engine, check the accelerator pedal to be sure it is operating smoothly. Make sure the accelerator pedal

fully returns to the idle position as soon as it is released.

WARNING

POTENTIAL HAZARD

Malfunction of the accelerator pedal.

WHAT CAN HAPPEN

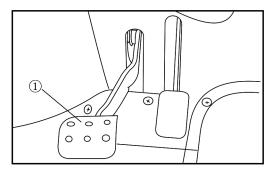
The accelerator pedal could be hard to operate, making it difficult to speed up or slow down when you need to. This could cause an accident.

HOW TO AVOID THE HAZARD

Check the operation of the accelerator pedal before you start the engine. If it does not work smoothly, check for the cause. Correct the problem before operating the vehicle. Consult a dealer if you can't find or solve the problem yourself.

Brake Pedal

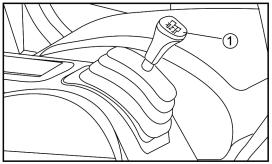
Press the brake pedal to slow or stop the vehicle.



1. Brake pedal

Drive Select Lever

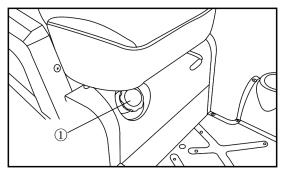
The drive select lever is used to shift the vehicle into low, high, neutral and reverse positions. (Refer to pages 6-4—6-5 for the drive select lever operation.)



1. Drive select lever

Fuel Tank Cap

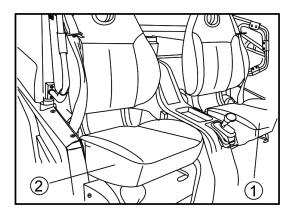
Remove the fuel tank cap by turning it counter clockwise.



1. Fuel tank cap

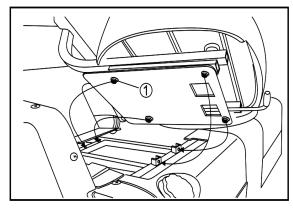
Seats

To remove a seat, Remove bolts M6 with socket wrench, and then remove the seat. Installation is the reverse of removal.



1. Driver seat

. Passenger seat



1.Bolt (4×M6)

CAUTION:

To install the seat, Adjust the four bolts M6 cooperatively to ensure the seat can move forward and backward normally. Improper installation can result in seat rail blocked and failure to move the seat back and forth.

WARNING

POTENTIAL HAZARD

A loose seat.

WHAT CAN HAPPEN

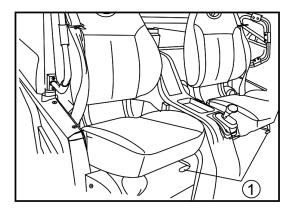
The operator could lose control or the operator or passenger could fall if the seat is loose during operation.

HOW TO AVOID THE HAZARD

Make sure the seat is mounted firmly.

Moving Seat Forward And Backward.

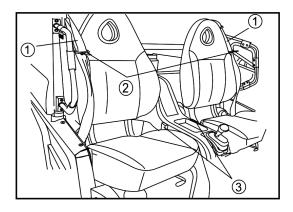
The seat can be moved forward and backward to fit the height of different drivers. Pull up the handle, then you can move the seat forward and backward.



1. Seat handle

Seat Belt

This vehicle is equipped with three-point seat belts for both the operator and passenger. Always wear the seat belt while riding in the vehicle.

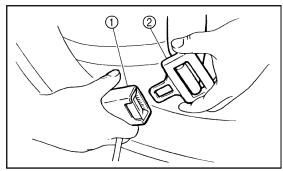


- 1. Seat belt (x2)
- 2. Latch plate (x2)

3. Buckle (x2)

To wear the seat belt properly, do the following:

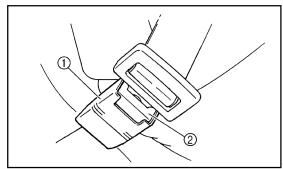
- Hold the latch plate as you pull the belt across your lap and chest. Make sure the belt is not twisted and is not caught on any portion of the vehicle, your clothing, or any equipment you are carrying.
- Push the latch plate into the buckle until it clicks. Pull up on the latch plate to make sure it is secure.



1. Buckle

2. Latch plate

- Put the lap portion of the belt low on your hips. Push down on the buckle end of the belt as you pull up on the shoulder part so the belt is snug across your hips.
- 4. Position the shoulder belt over your shoulder and across your chest. The shoulder belt should fit against your chest. If it is loose, pull the belt out all the way and then let it retract.
- 5. To release the buckle, firmly press the release button.



1. Buckle

2. Release button

WARNING

POTENTIAL HAZARD

Not wearing the seat belt.

Wearing the seat belt improperly.

WHAT CAN HAPPEN

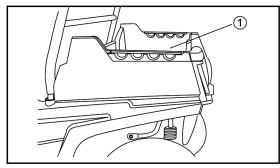
There is increased risk of being killed or seriously injured in an accident.

HOW TO AVOID THE HAZARD

Always wear your seat belt when riding in the vehicle.

Be sure the seat belt is close-fitting across your hips and chest and is latched securely.

Cargo Bed



1. Cargo bed

Maximum load limit:100kg (220lb)

WARNING

POTENTIAL HAZARD

Overloading the cargo bed.

WHAT CAN HAPPEN

Could cause changes in vehicle handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated maximum load limit for this cargo bed.

Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo. Allow greater distance for braking.

WARNING

POTENTIAL HAZARD

Carrying a passenger in the cargo bed. WHAT CAN HAPPEN

The passenger could fall, be thrown out, or be struck by objects in the cargo bed.

HOW TO AVOID THE HAZARD

Never carry a passenger in the cargo bed. This cargo bed is designed to carry cargo only.

Front and Rear Shock Adjustment

The spring preload can be adjusted to suit the operating conditions.

You can reduce preload for a softer ride, or increase preload if frequent bottoming occurs.

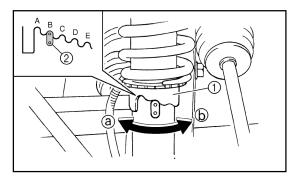
CAUTION:

Frequent or severe bottoming can cause increased wear or damage to the vehicle.

Adjust the spring preload as follows.

To increase the spring preload, turn the adjusting ring in direction ⓐ.

To decrease the spring preload, turn the adjusting ring in direction **ⓑ**.



- 1. Spring preload adjusting ring
- 2. Position indicator

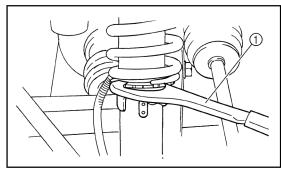
NOTE:

A special wrench can be obtained at a dealer to make this adjustment.

Standard position: B

A-Minimum(soft)

E-Maximum(hard)



1. Special wrench

▲ WARNING

POTENTIAL HAZARD

Improper shock absorber adjustment.

WHAT CAN HAPPEN

Uneven adjustment can cause poor handling and loss of stability, which could lead to an accident.

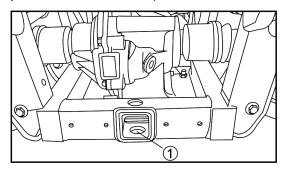
HOW TO AVOID THE HAZARD

Always adjust the shock absorbers on the left and right side to the same setting.

Trailer Hitch Bracket

This vehicle is equipped with a 5 cm (2 in) receiver bracket for a standard trailer hitch.

Trailer towing equipment can be obtained at a dealer. (See pages 6-11-6-13 for precaution information.)



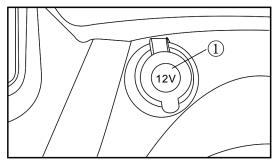
1. Trailer hitch bracket

Auxiliary DC Jack

The auxiliary DC jack is located at the right side of the front panel.

The auxiliary DC jack can be used for suitable work lights, radios, etc.

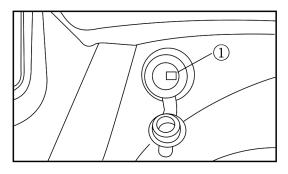
The auxiliary DC jack should only be used when the engine is running.



- 1. Auxiliary DC jack cap
- 1. Set the light switch to "OFF".
- 2. Start the engine. (See pages 6-1-6-3.)
- 3. Open the auxiliary DC jack cap, and then insert the accessory power plug into the

jack.

4. When the auxiliary DC jack is not being used, cover it with the cap.



1. Auxiliary DC jack

Maximum rated capacity for the auxiliary DC jack:

DC 12V, 120W (10 A)

CAUTION:

- Do not use accessories requiring more than the above maximum capacity. This may overload the circuit and cause the fuse to blow.
- If accessories are used without the engine running or with the headlights turned on, the battery will lose its charge and engine starting may become difficult.
- Do not use an automotive cigarette lighter or other accessories with a plug that gets hot because the jack can be damaged.

PRE-OPERATION CHECKS

Before using this vehicle, check the following points:

ITEM	ROUTINE	PAGE
Brakes	Check operation, free play, fluid level and fluid leakage. Fill with DOT 4 brake fluid if necessary.	5-2-5-3, 8-26-8-30
Parking brake	Check for proper operation, condition and free play.	6-66-7
Fuel	Check fuel level. Fill with fuel if necessary.	5-4—5-5
Engine/Gear box oil	Check oil level. Fill with oil if necessary.	5-6
Coolant reservoir	Check coolant level. Fill with coolant if necessary.	5-6,8-15—8-16
Final gear oil / Differential gear oil	Check for leakage.	5-7
Accelerator pedal	Check for proper accelerator pedal operation.	5-8-5-10
Seat belts	Check for proper operation and belt wear.	5-10
Steering	Check for proper operation .	5-8,5-10
Fittings and fasteners • Check all fittings and fasteners.		5-11
Lights and switches	Check for proper operation.	5-11
Wheels and tires	Check tire pressure, wear and damage.	5-2 - 5-15, 8-35 - 8-36
Axle boots	Check for damage.	8-17
Instrument	Check for compelete and right display	4-2-4-8
Light/Indicator	Check for light / indicator operation	4-2-4-8

WARNING

POTENTIAL HAZARD

Failure to inspect the vehicle before operating. Failure to properly maintain the vehicle.

WHAT CAN HAPPEN

Increases the possibility of an accident or equipment damage.

HOW TO AVOID THE HAZARD

Always inspect your vehicle each time you use it to make sure the vehicle is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in the Owner's Manual.

Brakes

Always check brake pedal travel and the brake fluid reservoir level before each use of the vehicle. When applied, the brake pedal should feel firm. Any sponginess would indicate a possible fluid leak or low brake fluid level, which must be corrected before riding.

If you discover any irregularities in brake system operation, including excessive pedal travel, contact your dealer for proper diagnosis and repairs.

Front and Rear Brakes Brake Pedal

Check for correct brake pedal free play. If the brake pedal free play is incorrect, have a dealer adjust it. (See pages 8-26—8-33.)

Check the operation of the brake pedal. It should move smoothly and there should be a firm feeling when the brakes are applied. If not, have the vehicle inspected by a dealer.

Brake Fluid Level

Check the brake fluid level.

Add fluid if necessary. (See pages 8-28)

Recommended brake fluid: DOT 4

Brake Fluid Leakage

Check to see if any brake fluid is leaking out of the pipe joints or the brake fluid reservoir. Apply the brakes firmly for one minute. If there is any leakage, have the vehicle inspected by a dealer.

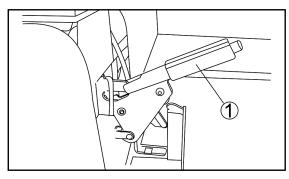
Brake Operation

Test the brakes at slow speed after starting out to make sure they are working properly. If the brakes do not provide proper braking performance, inspect the brake system. (See pages 8-26—8-29.)

Emergency Braking

When the braking system is out of order, the emergency braking system allows the vehicle to be stopped with a comparatively small brake performance.

The emergency brake system and parking system are the same system.



1. Parking handbar

Emergency Brake Inspection

Test the Emergency braking at slow speed after starting out to make sure they are working properly. If the brakes do not provide proper braking performance, inspect the brake system.

WARNING

POTENTIAL HAZARD

Driving with improperly operating brakes.

WHAT CAN HAPPEN

You could lose braking ability, which could lead to an accident.

HOW TO AVOID THE HAZARD

Always check the brakes at the start of every ride. Do not operate the vehicle if you find any problem with the brakes. If a problem cannot be corrected by the adjustment procedures provided in this manual, have the vehicle inspected by a dealer.

Fuel

Make sure there is sufficient gasoline in the tank.

Recommended fuel:

Unleaded gasoline only

Fuel tank capacity:

30.0L (6.6lmp gal, 7.93US gal)

CAUTION:

Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.

Your engine has been designed to use regular unleaded gasoline with a pump octane number ([R+M] /2) of 86 or higher, or research octane number of 93 or higher. If knocking or pinging occurs, use a different brand of gasoline or premium unleaded fuel. Unleaded fuel will give you longer spark plug life and reduced maintenance cost.

Gasohol

The UTV uses an electric fuel injection system, and its emissions completely meet the requirements of relevant rule of the United States and Europe. But mixed fuel is forbidden to use on the UTV, because its injection quantity is different from gasoline. The mixed fuel will cause engine to work abnormally and exhaust to be deteriorated.

WARNING

POTENTIAL HAZARD

Improper care when refueling.

WHAT CAN HAPPEN

Fuel can spill, which can cause a fire and severe injury.

Fuel expands when it heats up. If the fuel tank is overfilled, fuel could spill out due to heat from the engine or the sun.

HOW TO AVOID THE HAZARD

Do not overfill the fuel tank. Be careful not to spill fuel, especially on the engine or exhaust pipe. Wipe up any spilled fuel immediately. Be sure the fuel tank cap is closed securely.

Engine/Reduction Gear box Oil

Make sure the engine/reduction gear box oil is at the specified level. Add oil as necessary. (See pages 8-7 —8-10.)

CAUTION:

- In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of "CD" or oils of a higher quality than specified. In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.
- Make sure that no foreign material enters the crankcase.

Recommended engine/reduction gear box oil type and quantity:

See page 10-2

Coolant

Check the coolant level in the coolant reservoir when the engine is cold. (The coolant level will vary with engine temperature.) The coolant level is satisfactory if it is between the minimum and maximum level marks on the coolant reservoir. If the coolant level is at or below the minimum level mark, add additional coolant to bring the level up to maximum level mark. If coolant is not available, add distilled water. Change the coolant every two years. (See pages 8-15—8-17) for details.

CAUTION:

Hard water or salt water is harmful to the engine. You may use soft water if you cannot get distilled water.

Coolant reservoir capacity (up to the maximum level mark): 0.627L(0.555lmp qt, 0.663US qt)

WARNING

POTENTIAL HAZARD

Removing the radiator cap when the engine and radiator are still hot.

WHAT CAN HAPPEN

You could be burned by hot fluid and steam blown out under pressure.

HOW TO AVOID THE HAZARD

Wait for the engine to cool before removing the radiator cap. Always use a thick rag over the cap. Allow any remaining pressure to escape before completely removing the cap.

Final Gear Oil

Make sure the final gear oil is at the specified level. Add oil as necessary. (See pages 8-14—8-15 for details.)

Recommended oil:

SAE 80 API GL-4 Hypoid gear oil

If desired, an SAE 80W90 hypoid gear oil may be used for all conditions.

NOTE:

GL-4 is a quality and additive rating, GL-5 or GL-6 rated hypoid gear oils may also be used.

Differential Gear Oil

Make sure the differential gear oil is at the specified level. Add oil as necessary. (See pages 8-16—8-17 for details.)

Recommended oil:

SAE 80 API GL-5 Hypoid gear oil

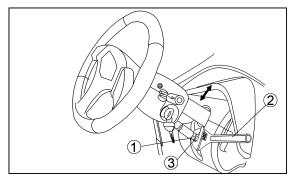
Adjustment of steering wheel:

You can adjust the height of the steering board according to the driver's height and driving habits.

- 1. Releasing the locking nut
- 2. Adjusting the steering wheel to the proper location, by using the wrench to turn the middle threaded shaft.
- 3. Tightening the locking nut.

Tightening torque of the Locking Nut:

28N.m (2.8m-kgf, 19.8 ft-lbs)



1. Adjustable steering column nut 2. Wrench 3. Threaded Shaft

Throttle Pedal

Check to see that the accelerator pedal operates correctly. It must operate smoothly and fully spring back to the idle position when released. Have a dealer repair as necessary for proper operation.

▲ WARNING

Failure to check or maintain proper operation of the throttle system can result in an accident and lead to serious injury or death if the throttle pedal sticks during operation.

Never start or operate this vehicle if it has a sticking or improperly operating throttle pedal.

Immediately contact your dealer for service if throttle problems arise.

Always check the pedal for free movement and return before starting the engine and occasionally during operation.

Throttle Freeplay

If the throttle pedal has excessive play due to cable stretch or mis-adjustment, it will cause a delay in throttle response, especially at low engine speed. The throttle may also not open fully. If the throttle pedal has no freeplay, the throttle may be hard to control, and the idle speed may be erratic.

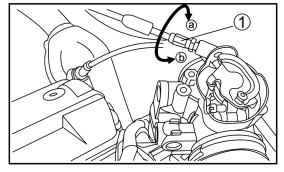
Check the throttle pedal freeplay, Adjust the freeplay If necessary.

Throttle Freeplay Inspection

- Lift the parking brake to the top to park the car.
- 2. Apply the brakes. Start the engine. Allow it to warm up thoroughly.
- Measure the distance the throttle pedal moves before the engine begins to pick up speed. Freeplay should 1/16 to 1/8 inches(1.5-3mm).

Throttle Freeplay Ajustment

- Remove both seats. Remove the middle cover of the engine, (see PAGE 8-6)
- Loose the nut of throttle rope on the valve, Spin the throttle rope inside/ outside to increase the throttle pedal's moving distance to 1.5-3 mm.



- 1. Accelerator Cable column nut
- Fix the nut.
- Resume the center cover and seat to their position

Steering Wheel Inspection

Check the steering wheel for specified freeplay and smooth operation.

- Position the vehicle on level ground.
- 2. Lightly turn the steering wheel left and right.
- 3. There should be 0.8'' -1.0'' (20-25 mm) of freeplay.

If there is excessive freeplay or strange noises, or the steering feels rough or "catchy, " have the steering system inspected by an authorized dealer.

Seat Belts

Make sure that both seat belts are not frayed or damaged.

The seat belt must move smoothly when pulled out and retract on its own when released. The latch plate should click securely into the buckle and release when the release button is pushed

firmly. Wash off any dirt or mud which could affect operation. Have a dealer repair as necessary for proper operation.

Fittings and Fasteners

Always check the tightness of chassis fittings and fasteners before a ride. Take the vehicle to a dealer or refer to the Service Manual for correct tightening torque.

Lights

Check the headlights and tail/brake lights to make sure they are in working condition. Repair as necessary for proper operation.

Switches

Check the operation of all switches. Have a dealer repair as necessary for proper operation.

WARNING

POTENTIAL HAZARD

Operating this vehicle with improper tires, or with improper or uneven tire pressure.

WHAT CAN HAPPEN

Use of improper tires on this vehicle, or operation of this vehicle with improper or uneven tire pressure, may cause loss of control, increasing your risk of accident.

HOW TO AVOID THE HAZARD

1. The tires listed below have been approved by Motor Manufacturing corporation of America for this model. Other tire combinations are not recommended.

	Туре	Size
Front	25×8-12	8PR
Rear	25×10-12	8PR

- 2. The tires should be set to the recommended pressure:
- Recommended tire pressure

Front 140kpa (0.7 kgf/cm², 20psi)

Rear 140kpa (0.7 kgf/cm², 20psi)

Check and adjust tire pressures when the tires are cold.

Tire pressures must be equal on both sides.

3. Tire pressure below the minimum specified could cause the tire to dislodge from the rim

under severe riding conditions. The following are minimums:

Front 126kpa (0.64kgf/cm², 18psi)

Rear 126kpa (0.64kgf/cm², 18psi)

4. Use no more than the following

Pressures when seating the tire beads.

Front 250kpa (2.5kgf/cm², 36psi)

Rear 250kpa (2.5kgf/cm², 36psi)

Higher pressures may cause the tire to burst. Inflate the tires very slowly and carefully. Fast inflation could cause the tire to burst.

How to measure tire pressure

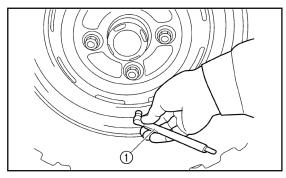
Use the tire pressure gauge.

N	\cap	г=.
IV	u	I E.

The tire pressure gauge is included as standard equipment. Make two measurements of the tire pressure and use the second reading. Dust or dirt in the gauge could cause the first reading to be incorrect.

Set pressure with tires cold. Set tire pressures to the following specifications:

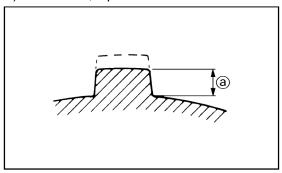
	Recommended	Minimum	Maximum	
	pressure	IVIII III TIGITT	IVIGAIITIUITI	
	140kpa	126kpa	154kpa	
Front	(0.70kgf/ cm ² ,	(0.64kgf/ cm ² ,	(0.77kgf/ cm ² ,	
	20psi)	18psi)	22psi)	
	140kpa	126kpa	154kpa	
Rear	(0.70kgf/ cm ² ,	(0.64kgf/cm ² ,	(0.77kgf/ cm ² ,	
	20psi)	18psi)	22psi)	



1. Tire pressure gauge

Tire Wear Limit

When the tire groove decreases to 3 mm (0.12 in) due to wear, replace the tire.



a. Tire wear limit

OPERATION

WARNING

POTENTIAL HAZARD

Operating vehicle without being familiar with all controls.

WHAT CAN HAPPEN

Loss of control, which could cause an accident or injury.

HOW TO AVOID THE HAZARD

Read the Owner's Manual carefully. If there is a control or function you do not understand, ask your dealer.

Starting The Engine In Low Temperatures

WARNING

POTENTIAL HAZARD

Freezing control cables in cold weather.

WHAT CAN HAPPEN

You could be unable to control the vehicle, which could lead to an accident or collision.

HOW TO AVOID THE HAZARD

When riding in cold weather, always make sure all control cables work smoothly before you begin riding.

- Check the throttle cable, parking cable, and the reverse lock out cable, and make sure that they are not frozen.
- 2. Start the engine (see P6-2).

Starting The Engine

CAUTION:

See the "Engine Break-In" section prior to operating the engine for the first time.

- Turning the key to "ON", the light in the display will turn on, and electronic injection system's fuel pump will start to work; wait for 10 second before the following operation.
- 2. Apply the brake.
- 3. Shift the drive select lever into the neutral position.

NOTE:

 When the drive select lever is in the neutral position "N", the neutral indicator light should come on. If the neutral

- indicator light does not come on, ask a dealer to inspect the electric circuit.
- The engine can be started in any gear if the brake is applied. However, it is recommended to shift into neutral "N" before starting the engine.
- With your foot off the accelerator pedal, start the engine by turning the key to "START".

NOTE:

If the engine fails to start, release the key, and then try starting again. Wait a few seconds before the next attempt. Each cranking should be as short as possible to preserve battery energy. Do not crank the engine more than 5 seconds on each attempt.

5. Continue warming up the engine until it idles smoothly before riding.

▲ WARNING

POTENTIAL HAZARD

Engine idle speed exceeds the regulated speed.

WHAT CAN HAPPEN

Will make it difficult to select gear and lose control, finally causing serious injury or even death.

HOW TO AVOID THE HAZARD

Because of electronic injection system, the idle speed will be speed up when the voltage of battery is low. Place the gear on position 'N', and press the throttle pedal to make the engine run at 2500RPM to charge the

press the throttle pedal to make the engine run at 2500RPM to charge the battery for 5-10 minutes; when the voltage of battery is over 12V, the idle speed will be normal. If the idle speed is still high, please contact your dealer.

Warming Up

To get maximum engine life, always warm up the engine before driving. Never accelerate hard with a cold engine! To see whether or not the engine is warm, check if it responds to the throttle normally.

- 1. Release the brakes and press the accelerator pedal gradually.
- 2. If the rotation rate of the engine accelerates with pedal steadily, the warming-up procedure has been ready and the vehicle can been ridden. Otherwise, go on with the third step.
- 3. Continue warming up the engine until it idles smoothly.

CAUTION:

See the "Engine break-in" section prior to operating the engine for the first time.

Drive Select Lever Operation And Driving In Reverse

CAUTION:

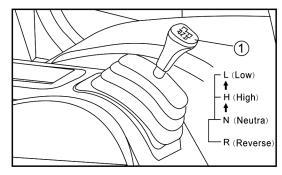
Before shifting, you must stop the UTV and return the throttle lever to the closed position, otherwise the transmission may be damaged.

Shifting: Neutral to High and High to Low

Bring the UTV to a complete stop and return the throttle lever to the closed position.
 Apply the brakes, then shift by moving the drive select lever along the shift guide.

NOTE:	
_	

Make sure that the drive select lever is completely shifted into position.



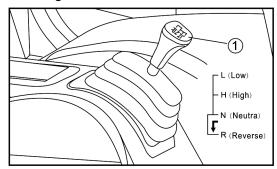
1. Drive select lever

Shifting: Neutral to Reverse

NOTE:

The drive select lever cannot be shifted into or from reverse without applying the brake.

- 1. Bring the UTV to a complete stop and return the throttle lever to the closed position.
- 2. Apply the brake pedal.
- 3. Shift from neutral to reverse and vice versa by moving the drive select lever along the shift guide.



1. Drive select lever

NOTE:

- When in reverse, the reverse indicator light should be on. If the light does not come on, ask a dealer to inspect the electrical circuit.
- Due to the synchronizing mechanism in the engine, the light may not come on until the UTV starts moving.
- 4. Check behind for people or obstacles, and then release the brake pedal.
- 5. Open the throttle lever gradually and continue to watch to the rear while backing.

WARNING

POTENTIAL HAZARD

Improperly operating in reverse.

WHAT CAN HAPPEN

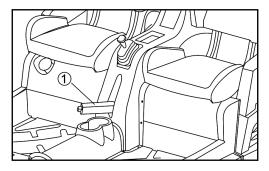
You could hit an obstacle or person behind you, resulting in serious injury.

HOW TO AVOID THE HAZARD

When you shift into reverse, make sure there are no obstacles or people behind you. When it is safe to proceed, go slowly.

Parking

- When parking, stop the engine and shift the drive select lever into the neutral position.
- 2. Push the brake pedal down, and pull the parking brake to top position to park the vehicle



1. Parking handbar

Parking on a slope

WARNING

POTENTIAL HAZARD

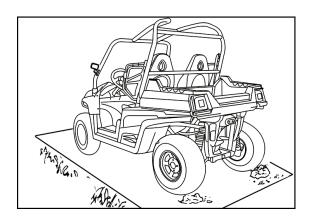
Parking on a hill or other incline.

WHAT CAN HAPPEN

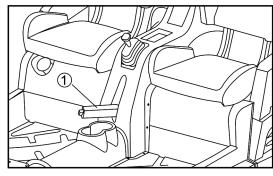
The vehicle could roll out of control, increasing the chance of an accident.

HOW TO AVOID THE HAZARD

Avoid parking on hills or other inclines. If you must park on an incline, apply the parking brake, and block the front and rear wheels with rocks or other objects. Do not park the vehicle at all on hills that are so steep you could not walk up them easily.



- 1. Bring the vehicle to a stop by applying the brakes.
- 2. Stop the engine.
- 3. With the brakes applied, set the parking brake.



1. parking handbar

NOTE:

Like many other vehicles, the parking brake acts on the rear wheels. For the parking brake to operate all four wheels, shift to 4WD before stopping the engine.

Vehicle Break-in Period

The break-in period for your new UTV vehicle is the first 25 hours of operation, or the time it takes to use the first three tanks full of gasoline. No single action on your part is as important as a proper break-in period. Careful treatment of a new engine and drive components will result in more efficient performance and longer life for these components. Perform the following procedures carefully.

CAUTION:

 Excessive heat build-up during the first three hours of operation will damage close-fitted engine parts and drive components. Do not operate at full throttle or high speeds during the first three hours of use.

 Use of any engine oil not mentioned in this manual will cause severe damage to the engine.

Engine Break-In

There is never a more important period in the life of your vehicle than the period between zero and 25hours.

For this reason, we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first several hours of running.

During the first 25 hours, the various parts in the engine wear and polish themselves to the correct operating clearances.

During this period, prolonged full throttle operation or any condition which might result in excessive engine heating must be avoided.

However, momentary (2-3 seconds maximum) full throttle operation under load does not harm the engine.

Each full throttle acceleration sequence should be followed with a substantial rest period for the engine by cruising at lower r/min so the engine can rid itself of the temporary build up of heat. If any abnormality is noticed during this period, consult a dealer.

0-10 Hours:

Avoid continuous operation above half throttle. Allow a cooling off period of five to ten minutes after every hour of operation. Vary the speed of the vehicle from time to time. Do not operate it at one set throttle position.

10-25 Hours:

Avoid prolonged operation above 3/4 throttle.

Rev the vehicle freely but do not use full throttle at any time.

After Break-In:

The vehicle can now be operated normally.

Brake System Break-in

Apply only moderate braking force for the first 50 stops. Aggressive or overly forceful braking when the brake system is new could damage brake pads and rotors.

CVT Break-in (Clutches/Belt)

A proper break-in of the clutches and drive belt will ensure a longer life and better performance. Break in the clutches and belt by operating at slower speeds during the break-in period as recommended. Pull only light loads. Avoid aggressive acceleration and high speed operation during the break-in period.

Accessories and Loading

Accessories

Accessories can affect the handing and control of your vehicle. Keep the following in mind when considering an accessory or operating a vehicle which has accessories.

• Choose only accessories designed for your vehicle. Your dealer has a variety of genuine accessories. Other accessories may also be available on the market. However, it is not possible to test all non factory accessories, nor have any control over the quality or suitability of them. Choose a genuine accessory, or one that is equivalent in design and quality.

- Accessories should be rigidly and securely mounted. An accessory which can shift position or come off while you are operating could affect your ability to control the vehicle.
- Do not mount an accessory where it could interfere with your ability to control the vehicle. Examples include (but are not limited to) an object that limits your ability to turn the steering wheel or one that limits your view.
- Use extra caution when driving a vehicle with accessories. The vehicle may handle differently than it does without accessories.

Loading

Carrying cargo or towing a trailer can change the stability and handling of a vehicle.

You must use common sense and good judgment when carrying cargo or towing a trailer. Keep the following points in mind:

Never exceed the weight limits shown.
 An overloaded vehicle can be unstable.

MAXIMUM LOADING LIMIT

- Vehicle loading limit (total weight of cargo, operator, passengers and accessories, and tongue weight): 300kg (660lb)
- Cargo bed:100kg (220lb)
- seat load weight: 75×2=150kg(330lbs)
- Trailer hitch:
- Pulling load (total weight of trailer and cargo):550kg(1,210lbs)

 Tongue weight (vertical weight on trailer hitch point):50kg(110lbs)

NOTE:		
Cargo bed	:	

Max. loading weight is 100Kg (220lbs)

- Choose a trailer hitch drawbar designed for use with a 5 cm (2in) receiver. (See page 4-23 for more information)
- Do not exceed the maximum tongue weight. You can measure tongue weight with a bathroom scale. Put the tongue of the loaded trailer on the scale with the tongue at hitch height. Adjust the load in the trailer, if necessary, to reduce the weight on hitch. If you are carrying cargo and towing a trailer, include the tongue weight in the

maximum vehicle load limit.

- Load cargo in the cargo bed as close to the center of the vehicle as possible and tie it down using the cargo hooks equipped on the cargo bed.
- Tie down cargo securely in the trailer.
 Make sure cargo in the trailer cannot move around. A shifting load can cause an accident.
- Make sure the load does not interfere with controls or your ability to see where you are going.
- Drive more slowly than would without a load. The more weight you carry, the slower you should go. Although conditions vary, it is good practice not to exceed low range whenever you are carrying heavier loads or when towing a trailer.

- Allow more braking distance. A heavier vehicle takes longer to stop.
- Avoid making sharp turns unless at very slow speeds.
- Avoid hills and rough terrain. Choose terrain carefully. Added weight affects the stability and handling of the vehicle.

▲ WARNING

POTENTIAL HAZARD

Overloading this vehicle or carrying or towing cargo improperly.

WHAT CAN HAPPEN

Could cause changes in vehicle handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for this vehicle.

Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo or pulling a trailer. Allow greater distance for braking.

DRIVING YOUR VEHICLE

GETTING TO KNOW YOUR VEHICLE

This utility vehicle will handle and maneuver differently form an ordinary passenger car or other vehicle.

Before you begin to use your vehicle, be sure you have read this Owner's Manual completely and understand all of the controls. Pay particular attention to the safety information on pages 2-1—2-5. Please also read all caution and warning labels on your vehicle.

This vehicle is designed for the operator and one passenger. The driver and passenger must always wear a seat belt. Never carry passenger in the cargo bed.

WARNING

POTENTIAL HAZARD

Not wearing the seat belt.

Wearing the seat belt improperly.

WHAT CAN HAPPEN

There is increased risk of being killed or seriously injured in an accident.

HOW TO AVOID THE HAZARD

Always wear your seat belt when riding in the vehicle.

Be sure the seat belt is close-fitting across your hips and chest and is latched securely.

WARNING

POTENTIAL HAZARD

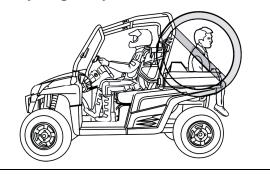
Carrying a passenger in the cargo bed.

WHAT CAN HAPPEN

The passenger could fall or be struck by objects in the cargo bed.

HOW TO AVOID THE HAZARD

Never carry a passenger in the cargo bed. The cargo bed is designed to carry cargo only.



The total weight of operator, passenger, accessories, cargo, trailer tongue weight, and the vehicle itself must not exceed 829Kg (1825lb). (See "Loading" on page 6-11.) Carrying a passenger and cargo can affect vehicle handling.

▲ WARNING

POTENTIAL HAZARD

Overloading this vehicle or carrying or towing cargo improperly.

WHAT CAN HAPPEN

Could cause changes in vehicle handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for this vehicle.

Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo or pulling a trailer. Allow greater distance for braking.

Always follow the instructions in your Owner's Manual for carrying cargo or pulling a trailer.

The driver and passenger must always wear a seat belt and an approved motorcycle helmet. Also wear eye protection and protective clothing, including over-the-ankle boots, gloves, a long-sleeved shirt or jacket, and long pants. Keep hands and feet inside the vehicle at all times.

WARNING

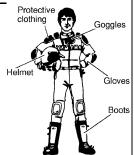
POTENTIAL HAZARD

Operating this vehicle without wearing an approved motorcycle helmet, eye protection, and protective clothing.

WHAT CAN HAPPEN

Operating without an approved motorcycle helmet increases your chances of a severe head injury or death in

the event of an accident.



Operating without eye protection can result in an accident and increases your chances of a severe injury in the event of an accident.

HOW TO AVOID THE HAZARD

Always wear an approved motorcycle helmet that fits properly. You should also wear:

Eye Protection

(Goggles or Face Shield)

Gloves

Boots

Long-Sleeved Shirt or Jacket

Long Pants

LEARNING TO OPERATE YOUR VEHICLE

You should become familiar with the performance characteristics of the vehicle in a large, flat area that is free of obstacles and other vehicles. Practice control of the accelerator pedal, brakes, steering, and drive select lever. Drive first at slow speed and become comfortable at that speed before gradually increasing your speed. Become familiar with the way the vehicle feels in low and high ranges, first in two-wheel drive (2WD) and then in four-wheel drive (4WD) and four-wheel drive with the differential locked (DIFF. LOCK). Also practice driving in reverse. Take the time to learn basic operation before attempting more difficult maneuvers.

Perform the Pre-Operation Checks on pages 5-1-5-15. Set the parking brake, shift to neutral, and follow the instructions on page 6-1 to start the engine. Once it has warmed up and you have turned the choke off, you are ready to begin driving your vehicle. With the engine idling, shift the drive select lever into low or high. Then release the parking brake. Press the accelerator pedal slowly and smoothly. The centrifugal clutch will engage and you will start to accelerate. Avoid higher speeds until you are thoroughly familiar with the operation of your vehicle. When slowing down or stopping, take your foot off the accelerator pedal and smoothly press the brake pedal. Improper use of the brakes can cause the tires to lose traction, reducing control and increasing the possibility of an accident.

CAUTION:

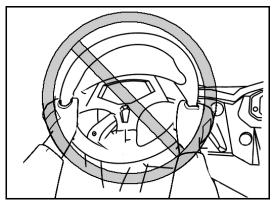
Do not shift from low to high or vice versa without coming to a complete stop and waiting for the engine to return to normal idle speed. Damage to the engine or drive train may occur.

TURNING YOUR VEHICLE

The vehicle is easier to steer in two-wheel drive (2WD) than four-wheel drive (4WD). Steering takes the most effort in 4WD with the differential locked (DIFF. LOCK).

It is possible for the vehicle to roll over or go out of control if you attempt sharp, high-speed turns. You should also be careful making sharp turns on rough terrain. Do not attempt to turn around or make abrupt maneuvers on slope.

Position your hands on the steering wheel so that your thumbs and fingers do not wrap around the wheel. This is particularly important when driving in rough terrain. The front wheels will move right and left as they respond to the terrain, and this movement will be felt in the steering wheel. A sudden jolt could wrench the steering wheel around, and your thumbs or fingers could be injured if they are in the way of the steering wheel spokes.

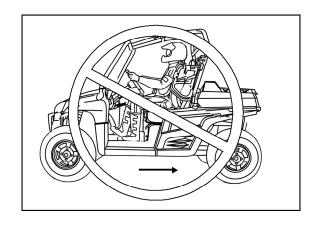


Operating Improperly in Reverse

Improperly operating in reverse could result in a collision with an obstacle or person. Always follow proper operating procedures . Follow these precautions when operating in reverse:

- 1. Always check for obstacles or people behind the vehicle.
- 2. Apply the throttle lightly. Never open the throttle suddenly.
- 3. Back slowly.
- Apply the brakes lightly for stopping.
- 5. Avoid making sharp turns.

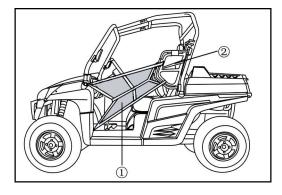
Before shifting into reverse gear, always check for obstacles or people behind the vehicle. When it's safe to proceed, back slowly.



Cab Nets And Shoulder Protection Plate

Your vehicle is equipped with cab nets and shoulder protection plates on both sides of the vehicle. Cab nets and shoulder protection plates must be used by both operator and passenger at all times. Promptly replace worn or damaged cab nets with new cab nets,

available from your authorized dealer allow component identification. Always use the cab nets and shoulder protection plates.



1. Cab Nets

2. Shoulder Protection Plate

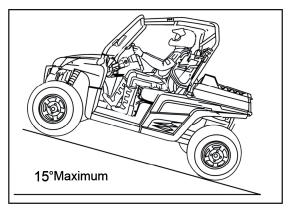
BRAKING

Braking ability is affected by the type of terrain. In most cases, gradually application of the brakes is more effective than abrupt braking, particularly on loose surfaces like gravel. Always allow for greater braking distance on rough, loose, or slippery surfaces.

GOING UPHILL

Do not attempt to climb hills until you have mastered basic maneuvers on flat ground. Use proper driving techniques to avoid overturns on hills and slopes. Drive straight up hills, and avoid crossing the side of a hill, which increases your chance of rollover. Practice first on gentle slopes before attempting steeper hills. Always check the terrain carefully before attempting any hill. Use common sense and remember that some hills are too steep for you to climb.

Maximum slope angle: 15° with full loading (300kg)



Choose carefully which hills you attempt to climb. Avoid hills with slippery surfaces or ones where you will not be able to see far enough ahead of you.

▲ WARNING

POTENTIAL HAZARD

Operating on excessively steep hills.

WHAT CAN HAPPEN

The vehicle can over turn more easily on extremely steep hills than on level surfaces or small hills.

HOW TO AVOID THE HAZARD

Never operate your vehicle on hills too steep for it or your abilities. Never operate vehicles on hills steeper than 15°.

Do not drive across the face of a hill. Go straight up the hill.

Practice on smaller hills before attempting large hills.

with 4WD Diff. Lock. To climb a hill, you need traction, momentum, and steady throttle. Travel fast enough to keep your momentum going, but not so fast that you cannot react to changes in the terrain as you climb. Slow down when you reach the crest of the hill if you cannot clearly see what is on the other side. There could be another person, an obstacle, or a sharp drop off. If you start to lose traction or momentum when climbing, and you decide you will be unable to continue, use the brakes to come to a stop. Do not attempt to turn the vehicle

around. With your foot on the brake, look

behind you and plan your descent. Shift the

Before climbing the hill, first be sure you are

operating in low range 4WD or, if necessary,

drive select lever in reverse so you can use the engine brake if necessary to slow your descent. Release the brake and begin to coast down the hill. Use engine braking as much as possible, gently applying the brakes when necessary.

GOING DOWNHILL

Check the terrain carefully before going down a hill. When possible, choose a path that lets you drive your vehicle straight downhill. Avoid sharp angles that could allow the vehicle to pitch or roll over. Carefully choose your path and drive no faster than you will be able to react to obstacles that may appear.

▲ WARNING

POTENTIAL HAZARD

Going down a hill improperly.

WHAT CAN HAPPEN

Could cause loss of control or cause the vehicle to overturn.

HOW TO AVOID THE HAZARD

Always check the terrain carefully before you start down any hill. Never go down a hill at high speed. Avoid going down a hill at an angle that would cause the vehicle to lean sharply to one side. Go straight down the hill where possible.

Before starting down hill, make sure the vehicle is in low-range 4WD. On most slopes, this will let you use engine braking to help you go downhill slowly. Go as slowly as possible. If you start going too fast, gently apply the brakes. Avoid sudden application of the brakes, which could cause the vehicle to start sliding.

If you are sliding or skidding, try to steer in the direction the vehicle is sliding to help you regain control.

If you must turn on the hill to avoid an obstacle, do so slowly and carefully. If the vehicle starts to tip, gradually steer in the downhill direction if there are no obstacles in your path. As you regain proper balance, gradually steer again in the direction you want to go.

CROSSING THROUGH SHALLOW WATER

If you must cross shallow, slow moving water up to the depth of the vehicle's floorboards, choose your path carefully to avoid sharp drop-offs, large rocks, or slippery surfaces that could cause the vehicle to overturn. Never operate through water deeper than 33 cm (13in) or fast flowing water.

Wet brakes may have reduced effectiveness. After leaving the water, test your brakes. If necessary, apply the brakes several times to let friction dry out the linings.

▲ WARNING

POTENTIAL HAZARD

Operating this vehicle through deep or fast-flowing water.

WHAT CAN HAPPEN

Loss of control, which could result in an accident including overturn, which could increase the risk of drowning.

HOW TO AVOID THE HAZARD

Never operate this vehicle in fast flowing water or in water deeper than 33cm (13in).

Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply brakes several times to let friction dry out the linings.

CAUTION:

After riding your vehicle in water, be sure to drain the trapped water by removing the check hose at the bottom of the air filter case, the CVT-belt cooling duct check hose, the drive select lever box check hose and the CVT-belt case drain plug. Wash the vehicle in fresh water if it has been operated in salt water or muddy conditions.

Vehicle Immersion

CAUTION:

If your vehicle becomes immersed, major engine damage can result if the machine is not thoroughly inspected. Take the vehicle to your dealer before starting the engine.

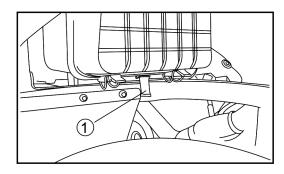
If it's impossible to take your vehicle to a dealer before starting it, follow the steps outlined below.

- 1. Move the vehicle to dry land.
- Check the air box. If water is present, dry the air box and replace the filter with a new filter.
- 3. Remove the spark plugs.
- 4. Turn the engine over several times.
- 5. Dry the spark plugs and reinstall them, or

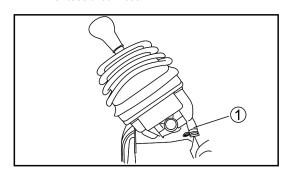
- install new plugs.
- 6. Attempt to start the engine. If necessary, repeat the drying procedure.
- 7. Take the vehicle to your dealer for service as soon as possible, whether you succeed in starting it or not.
- If water has been ingested into the CVT, make sure inspect the hole without water left inside. If it is muddy water, open the CVT cap and wash the parts before reassemble.
- 9. check the gearshift, release the water inside. Wash it if it is necessary.

CAUTION:

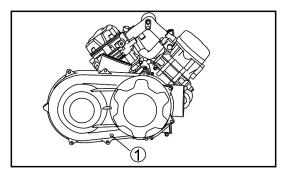
Make sure all motion parts coated with grease after wash and reassemble.



1. Air filter case check hose



1. Drive select lever box check hose



1. CVT Gear Box inspection hole

Rear Axle Differential Lock

When driving on rugged or muddy roads, locking the differential case in the rear axle gearbox will give you the best traction. In this case, the two rear wheels will be driven at the same rate. It may not be useful to lock the differential case after you've lost traction, because the skid process has destroyed the soil structure. Even if you

lock the differential, the rear wheels may continue to slip and will not drive the vehicle ahead.

WARNING

POTENTIAL HAZARD

The rear axle differential is in a locking state while driving on the standard road.

WHAT CAN HAPPEN

The vehicle will be difficult to drive, especially in the corners, which may cause steering difficulties.

HOW TO AVOID THE HAZARD

Operating the "UNLOCK" switch on the dashboard to ensure the rear axle differential in working condition, while driving on the standard road.

CAUTION:

The differential case in front axle gearbox uses friction structure and doesn't have lock mechanism, so driver don't need to lock up the differential case.

Riding Over Rough Terrain

Operating over rough terrain should be done with caution. Look for obstacles that could cause damage to the vehicle or could lead to a rollover accident. Avoid jumping the vehicle as injury, loss of control, and damage to the vehicle could occur.

▲ WARNING

POTENTIAL HAZARD

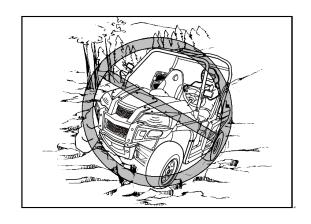
Failure to use extra care when operating this vehicle on unfamiliar terrain.

WHAT CAN HAPPEN

You can come upon hidden rocks, bumps, or holes, without enough time to react. Could result in the vehicle overturning or going out of control.

HOW TO AVOID THE HAZARD

Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the vehicle.



Riding In Brush Or Wooded Areas

When operating in areas with brush or trees, watch carefully on both sides and above the vehicle for obstacles such as branches that the vehicle might hit, causing an accident, or for brush that might enter the vehicle as you pass and strike the driver or passenger. Never hold onto the enclosure so your hand is outside the vehicle. Hold only onto the handgrip inside the enclosure.

Encountering Obstacles On The Trail

If you cannot go around an obstacle such as a fallen tree trunk or a ditch, stop the vehicle where it is safe to do so. Set the parking brake and get out to inspect the area thoroughly. Look from both your approach side and the exit side. If you believe you can continue safely, decide the path that will allow you to get over the obstacle at as close to a right angle as possible to minimize vehicle tipping. Go only fast enough to maintain your momentum but still give yourself plenty of time to react to changes in conditions. If there is any question about your ability to maneuver safely over the obstacle, you should turn around, if the ground is flat and you have the room, or back up until you find a less difficult path.

WARNING

POTENTIAL HAZARD

Improperly operating over obstacles.

WHAT CAN HAPPEN

Could cause loss of control or a collision. Could cause the vehicle to overturn.

HOW TO AVOID THE HAZARD

Before operating in a new area, check for obstacles.

Use extreme caution when operating over large obstacles, such as large rocks or fallen trees.

PERIODIC MAINTENANCE AND ADJUSTMENT

Periodic inspection, adjustment and lubrication will keep your vehicle in the safest and most efficient condition possible. Safety is an obligation of the vehicle owner. The most important points of vehicle inspection, adjustment and lubrication are explained on the following pages.

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the Owner's tool kit are sufficient for this purpose, except that a torque wrench is also necessary to properly tighten nuts and bolts.

NOTE:

If you do not have a torque wrench available during a service operation requiring one, take your vehicle to dealer to check the torque settings and adjust them as necessary.

▲ WARNING

POTENTIAL HAZARD

Servicing an engine while it is running. WHAT CAN HAPPEN

Moving parts can catch clothing or parts of the body, causing injury.

Electrical components can cause shocks or can start fires.

HOW TO AVOID THE HAZARD

Turn off the engine when performing maintenance unless otherwise specified.

Have a dealer perform service if you are not familiar with vehicle service.

▲ WARNING

POTENTIAL HAZARD

Operating this vehicle with improper modifications.

WHAT CAN HAPPEN

Improper installation of accessories or modification of this vehicle may cause changes in handling which in some situations could lead to an accident.

HOW TO AVOID THE HAZARD

Never modify this vehicle through improper installation or use of accessories. All parts and accessories added to this vehicle should be genuine or equivalent components designed for use on this vehicle and should be installed and used according to instructions.

If you have questions, consult an authorized vehicle dealer.

Periodic Maintenance Chart for the Emission Control System NOTE:

- For vehicles not equipped with an odometer or hour meter, follow the month maintenance intervals.
- For vehicles equipped with an odometer or an hour meter, follow the km(mi) or hours maintenance intervals. However, keep in mind that if the vehicle isn't used for a long period of time, the month maintenance intervals should be followed.
- Items marked with an asterisk should be performed by dealer as they require special tools, data and technical skills.

					INITIAL			EVERY		
	ROUTINE	Whichever	Month	1	3	6	6	12		
ITEM		Comes first	Km (mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)		
			hours	20	75	150	150	300		
Fuel Line*	Check fuel hose for cracks or damage.					0	0	0		
ruei Lille	Replace if necessary.					0	0	0		
Valves*	Check valve clearance.					_	_			
vaives	Adjust if necessary.			0		0	0	0		
	 Check condition. 									
Spark Plug	Adjust gap and clean.			0	0	0	0	0		
	Replace if necessary.									
Carburetor*	Check idle speed/starte	er operation.			0	0	0	0		
	Adjust if necessary.				O	Q	O	O		
Crankcase Breather	Check breather hose for cracks or damage.					0	0	0		
System*	 Replace if necessary. 					O	Ü	O		
Exhaust System*	 Check for leakage. 									
	Tighten if necessary.					0	0	0		
	 Replace gasket(s) if ne 	cessary.								
Spark Arrester	Clean.					0	0	0		
Sensor	Clean.				Clean for each 500km (312ml)					

General Maintenance and Lubrication Chart

					INITIAL	EVERY				
ITEM	ROUTINE	Whichever	Month	1	3	6	6	12		
		Comes first	Km	320	1,200	2,400	2,400	4,800		
		⇒	(mi) hours	(200)	(750) 75	(1,500) 150	(1,500) 150	(3,000)		
Cooling System	Check coolant leakage. Repair if necessary. Replace coolant every 24 months.				0	0	0	°		
Air Filter Elements (Engine and Air Intake Duct)	Clean. Replace if necessary.				Every 20–40 hours (More often in wet or dusty areas.)					
Engine Oil	Replace (Warm engine	Replace (Warm engine before draining.)				0	0	0		
Engine Oil Filter Cartridge	Replace	Replace				0	0	0		
Final Gear Oil	Check oil level. Check	k oil leakage.								
Differential Gear Oil	Replace.			0				0		
Front Brake*	 Check operation/brake pad wear/fluid leakage/see NOTE page 8-6. Correct if necessary. Replace pads if worn to the limit. 			0	0	0	0	0		
Rear Brake*	 Check operation/brake pad wear/fluid leakage/see NOTE page 8-6. Correct if necessary. Replace pads if worn to the limit. 			0	0	0	0	0		
Accelerator Pedal*	Check operation and free play.			0	0	0	0	0		
CVT-Belt*	Check operation. Check for wear, cracks, or damage.			0			0	0		
Wheels*	Check balance/damage/run out. Replace if necessary.			0		0	0	0		
Wheel Bearings*	Check bearing assemblies for looseness/damage.Repair if damaged.									
Front and Rear Suspension*	Check operation and foCheck toe-in/Adjust if n					0		0		

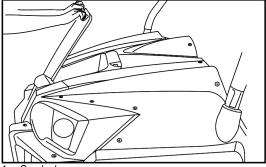
ITEM	ROUTINE	Whichever Comes first			INITIAL		EVE	RY
			Month	1	3	6	6	12
			Km (mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)
			hours	20	75	150	150	300
Steering System*	Check operation and for looseness. Replace if damaged. Check toe-in. Adjust if necessary			0	0	0	0	0
Rear Upper and Lower Knuckle Pivots*	Lubricate with lithium-based grease.					0	0	0
Drive Shaft Universal Joint*	Lubricate with lithium-based grease.					0	0	0
Engine Mount*	Check for cracks or damage. Check bolt tightness.					0	0	0
Front and Rear Axle Boots*	Check operation.Replace if damaged.			0				0
Anti-Roll Bar Bushings*	Check for cracks or dar	nage.				0	0	0
Fittings and Fasteners*	Check all chassis fittingCheck if necessary.	s and fasteners.		0	0	0	0	0

NOTE:

- Recommended brake fluid: DOT4
- Brake fluid replacement.
 - When disassembling the master cylinder or caliper, replace the brake fluid. Normally check the brake fluid level and add fluid as required.
 - On the inner parts of the master cylinder and caliper, replace the oil seals every two years.
- Replace the brake hoses every four years, or if cracked or damaged.

Sundry Box Cover To Open/ Close

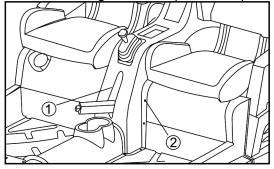
Unhook the hood latches, and then slowly tilt the sundry box cover up. To close, tilt cover back to closed position and fasten the latches.



1. Sundry box cover

Engine Cover To Open/ Close

- 1. Remove two seats (see page 4-16)
- Unscrew all the screws on the engine cover.
- 3. Pull the engine cover upward to open it.



1. Engine cover 2. Screw (M6x12)

CAUTION:

When installing the engine cover, be sure not to pinch the cables or wires.

Engine Oil and Oil Filter Cartridge

The engine oil level should be checked before each operation. In addition, the oil must be changed and the oil filter cartridge replaced at the intervals specified in the periodic maintenance and lubrication chart.

To Check Engine Oil Level

- 1. Place the vehicle on a level surface.
- Remove the console. (See page 8-9 for console removal and installation procedures.)
- 3. Check the engine oil level on a cold engine.

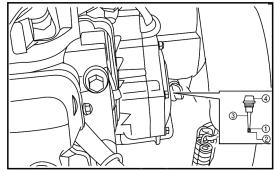
NOTE:

If the engine was started before checking the oil level, be sure to warm up the engine sufficiently, and then wait at least ten minutes until the oil settles for an accurate reading.

- 4. Remove the engine oil filler cap and wipe off the dipstick with a clean rag.
- 5. Insert the dipstick in the oil filler hole (without screwing it in), and then remove it again to check the oil level.

NOTE:

The engine oil should be between the minimum and maximum level marks.



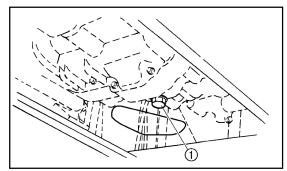
- 1. Maximum level mark
- Minimum level mark

Dipstick

- 4. Engine oil filler cap
- If the engine oil is at or below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.
- 7. Insert the dipstick into the oil filler hole, and then tighten the oil filler cap.
- 8. Install the console.

To Change the Engine Oil (With or Without Oil Filter Cartridge Replacement)

- Remove the console. (See page 8-9 for console removal and installation procedures.)
- Place an oil pan under the engine to collect the used oil, and then remove the engine oil filler cap.
- 3. Remove the engine oil drain bolt to drain the oil from the crankcase.

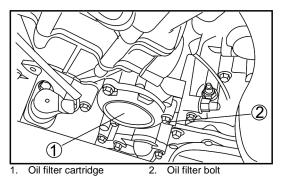


1. Engine oil drain bolt

NOTE:

Skip steps 4-6 if the oil filter cartridge is not being replaced.

4. Remove the oil filter cartridge with an oil filter wrench.



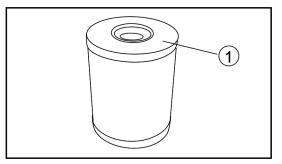
NOTE:

An oil filter wrench is available at a nearby dealer.

5. Apply a light coat of engine oil to the O-ring of the new oil filter cartridge.

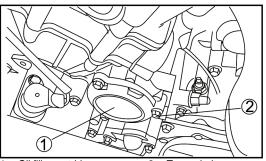
NOTE:

Make sure the O-ring is seated properly.



- 1. O-ring
- 6. Install the new oil filter cartridge with an oil filter wrench, and then tighten it to the specified torque with a torque wrench.

Tightening torque:
Oil filter cartridge:
17Nm (1.7m-kgf, 12 ft-lbs)



1. Oil filler cartridge

- 2. Torque bolt
- 7. Install the engine oil drain bolt, and then tighten it to the specified torque.

Tightening torque: Engine oil drain bolt: 24Nm (2.4m·kgf, 17 ft·lbs) 8. Add the specified amount of recommended engine oil, and then install the engine oil filler cap and tighten it.

See page 10-2.
Oil quantity:
Without oil filter cartridge replacement:
1.05L (1.67 lmp qt, 2.01 US qt)
With oil filter cartridge replacement:
2.0 L (1.76 lmp qt, 2.11 US qt)

Recommended engine oil:

CAUTION:

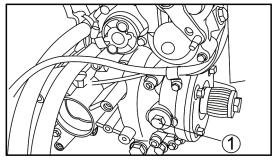
- In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of "CD" or oils of a higher quality than specified. In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.
- Make sure that no foreign material enters the crankcase.
- Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.
- 10.Turn the engine off, wait at least ten minutes, and then check the oil level and correct it if necessary.
- 11.Install the console.

To change the Reduction Gear Box Oil

- 1. Remove oil inlet bolt
- 2. Remove oil outlet bolt, drain the oil of gear box and screw up oil outlet bolt.

Final Gear Oil

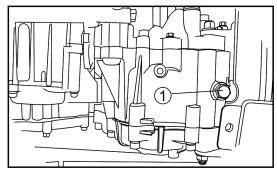
- 3. Add sufficient engine oil
- 4. Screw up oil inlet bolt.



1. Oil inlet bolt

Tighlening torgue:

Oil inlet bolt: 24N.m (2.4m·kgf, 17 ft·lbs)
Oil outlet bolt: 24N.m (2.4m·kgf, 17 ft·lbs)



1. Oil outlet bolt

Recommended engine oil:

See page 10-2.

Oil quantity:

Without oil filter cartridge replacement:

1.05L (1.67 lmp qt, 2.01 US qt)

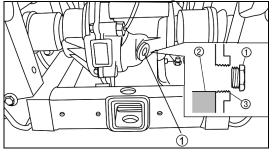
With oil filter cartridge replacement:

2.0 L (1.76 lmp qt, 2.11 US qt)

Final Gear Oil

Checking the Final Gear Oil Level

- 1. Place the vehicle on a level surface.
- 2. Remove the oil filler bolt, and then check the oil level in the final gear case.



- 1. oil filler bolt
- 2. Final gear oil
- 3. Correct oil level

NOTE:

The oil level should be at the brim of the filler hole.

3. If the oil is below the brim of the filler hole, add sufficient oil of the recommended type to raise it to the correct level.

CAUTION:

Be sure no foreign material enters the final gear case.

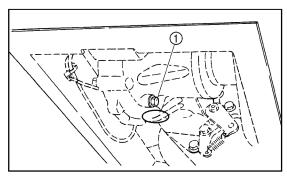
4. Install the oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Final gear oil filler bolt: 23 Nm (2.3 m·kgf, 16.3 ft·lbs)

Changing the Final Gear Oil

- 1. Place the vehicle on a level surface.
- Place a container under the final gear case to collect the used oil.
- 3. Remove the oil filler bolt and the drain bolt to drain the oil.



- 1. Final gear oil drain bolt
- 4. Install the drain bolt, and then tighten it to the specified torque.

Tightening torque:

Final gear oil drain bolt:

20 Nm (2.0 m·kgf, 14 ft·lbs)

5. Add the recommended final gear oil up to the brim of the filler hole.

Recommended oil:

SAE 80 API GL-4Hypoid gear oil Oil quantity:

0.4 L (0.35 Imp qt, 0.42 US qt)

CAUTION:

Be sure no foreign material enters the final gear case.

6. Install the oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Final gear oil filler bolt:

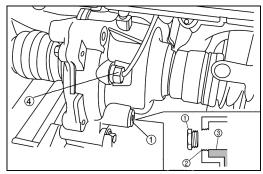
23 Nm (2.3 m·kgf, 16.3 ft·lbs)

7. Check for oil leakage. If oil leakage is found, check for the cause.

Differential Gear Oil

Checking the Differential Gear Oil Level

- 1. Place the vehicle on a level surface.
- Remove the differential gear oil filler bolt and check the oil level. It should be up to the brim of the filler hole. If the level is low, add sufficient oil of the recommended type to raise it to the specified level.



- 1. Speed sensor
- 2. Correct oil level
- 3. Differential gear oil
- 4. oil level sensor

CAUTION:

- 1.Be sure no foreign material enters the differential gear case.
- 2.Please clean the sensor every 500km (310miles).

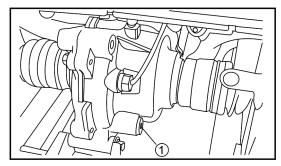
2. Install the differential gear oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Differential gear oil filler bolt: 23Nm (2.3 m·kgf, 16.3 ft·lbs)

Changing the Differential Gear Oil

- 1. Place the vehicle on a level surface.
- 2. Place a container under the differential gear case to collect the used oil.
- Remove the differential gear oil filler bolt and differential gear oil drain bolt to drain the oil.



1. Differential gear oil drain bolt

4. Install the differential gear oil drain bolt, and tighten it to the specified torque.

Tightening torque:

Differential gear oil drain bolt: 23Nm (2.3m-kgf, 16.3 ft-lbs)

5. Fill the differential gear case with the recommended oil.

Recommended oil:

SAE 80 API GL-5 Hypoid gear oil Oil quantity:

0.1 L (0.085 lmp qt, 0.105 US qt)

CAUTION:

Be sure no foreign material enters the differential gear case.

6. Install the differential gear oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Differential gear oil filler bolt: 23Nm (2.3m·kgf, 16.3 ft·lbs)

7. Check for oil leakage. If oil leakage is found, check for the cause.

Coolant

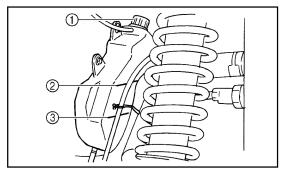
The coolant level should be checked before each ride.

Checking the Coolant Level

- 1. Place the vehicle on a level surface.
- 2. Open the hood. (See pages 8-7—8-8 for hood opening and closing procedures.)
- Check the coolant level in the coolant reservoir when the engine is cold as the coolant level varies with engine temperature.

NOTE:

The coolant should be between the minimum and maximum level marks.



- 1. Coolant reservoir cap
- Maximum level mark
- 3. Minimum level mark
- 4. If the coolant is at or below the minimum level mark, remove the reservoir cap, add coolant to the maximum level mark, install the reservoir cap, and then close the hood.

Coolant reservoir capacity (up to the maximum level mark): 0.627L(0.555lmp qt, 0.663US qt)

CAUTION:

Mix anti freeze with distilled water only. However, if distilled water is not available, soft water may be used for refilling.

Changing the Coolant

The coolant must be changed by a dealer at the intervals specified in the periodic maintenance and lubrication chart.

Recommended antifreeze:

High quality ethylene glycol antifreeze containing corrosion inhibitors for aluminum engines.

Antifreeze and water mixing ratio:

1:1

Total amount:

1.32L (1.16 lmp qt, 1.40 US qt)

Coolant reservoir capacity

(up to the maximum level mark):

0.627 L (0.55 lmp qt, 0.65 US qt)

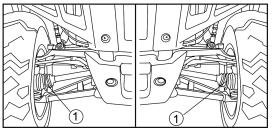
NOTE:

- Adding water instead of coolant lowers the antifreeze content of the coolant. If water is used instead of coolant, have a dealer check the antifreeze content of the coolant as soon as possible.
- The radiator fan is automatically switched on or off according to the coolant temperature in the radiator.

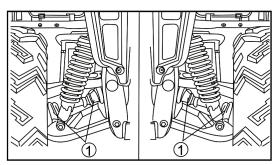
If your vehicle overheats, see page 8-45 for details.

Axle Boots

Check the protective boots for holes or tears. If any damage is found, have them replaced by a dealer.



1. Front axle boot (x2 each side)

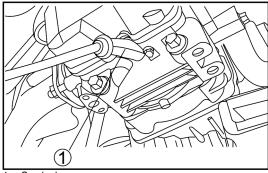


1. Rear axle boot (x2 each side)

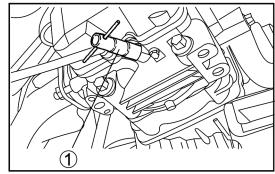
Spark Plug Inspection

Removal

- 1. Remove hood (See pages 8-6)
- 2. Remove the spark plug cap.
- 3. Use the spark plug wrench in the tool kit to remove the spark plug as shown.



Spark plug cap



1. Spark plug wrench

Inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine.

The ideal color of the porcelain insulator around the center electrode is a medium to light tan for a vehicle that is being ridden normally.

Do not attempt to diagnose such problems

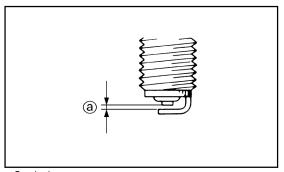
yourself.

Instead, take the vehicle to a dealer. You should periodically remove and inspect the spark plug because heat and deposits will cause the spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

Specified spark plug: DPR8EA-9 (NGK)

Installation

1. Measure the electrode gap with a wire thickness gauge and, if necessary, adjust the gap to specification.



a. Spark plug gap

Spark plug gap: 0.8-0.9mm (0.031-0.035 in)

- Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.
- 3. Install the spark plug and tighten it to the specified torque.

Tightening torque:

Spark plug:

17.5 Nm(1.75 m·kgf, 12.4 ft·lbs)

NOTE:

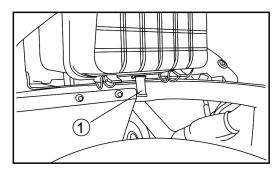
If a torque wrench is not available when you are installing the spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.

- 4. Install the spark plug cap.
- 5. Lower the cargo bed.

Cleaning the Engine Air Filter Element

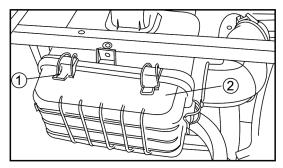
NOTE:

There is a check hose at the bottom of the air filter case. If dust or water collects in this hose, empty the hose and clean the air filter element and air filter case.



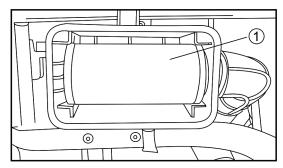
Air filter check hose

- Remove the seats. (See pages 4-16 4-17 for seat removal and installation procedure.)
- 2. Remove the Engine cover. (See page 8-9 for Engine cover removal and installation procedure.)
- 3. Remove the connecting rubber tube between air cleaner and throttle valve and the screws fixing the air cleaner, and then remove the air cleaner.

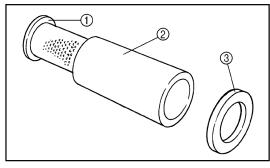


- 1. Holder (x6)
- 2. Air filter case cover

- 4. Remove the air filter element.
- 5. Remove the sponge material from its frame.



1. Air filter element



1. Air filter frame

- 2. Sponge material
- 3. Element retaining plate
- 6. Wash the sponge material gently but thoroughly in solvent.

WARNING

POTENTIAL HAZARD

Using low flash point solvents or gasoline to clean the sponge material.

WHAT CAN HAPPEN

Low flash point solvents or gasoline can catch fire or explode.

HOW TO AVOID THE HAZARD

Use parts cleaning solvent to clean the sponge material.

7. Squeeze the excess solvent out of the sponge material and let it dry.

CAUTION:

Do not twist the sponge material when squeezing it.

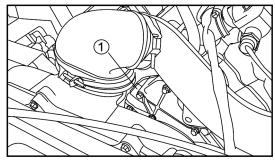
8. Inspect the sponge material and replace it if damaged.

9. Thoroughly apply foam air filter oil or other quality liquid foam air filter oil (not spray type) to the sponge material.

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1	v		ᆫ	

The sponge material should be wet but not dripping.

- 10. Pull the sponge material over its frame.
- 11. Install the air filter element.
- 12. Install the air filter case cover and be sure the crankcase breather hose is connected.



1. Crankcase breather hose

- 13.Install the engine cover.
- 14.Install the seats.

NOTE:_

The air filter element should be cleaned every 20-40 hours. It should be cleaned and lubricated more often if the vehicle is operated in extremely dusty areas. Each time air filter element maintenance is performed, check the air inlet to the air filter

case for obstructions. Check the air filter element rubber joint to the carburetor and manifold fittings securely to avoid the possibility of unfiltered air entering the engine.

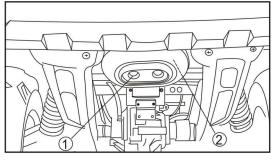
CAUTION:

Never operate the engine with the air filter element removed. This will allow unfiltered air to enter, causing rapid engine wear and possible engine damage. Additionally, operation without the air filter element will affect carburetor jetting with subsequent poor performance and possible engine overheating.

Cleaning the Spark Arrester

Be sure the exhaust pipe and muffler are cool before cleaning the spark arrester.

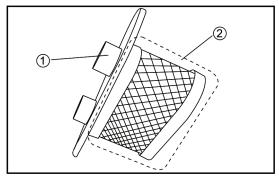
1. Remove the bolts.



1, muffler

2. Spark Arrester

- 2. Remove the tailpipe by pulling it out of the muffler
- Tap the tailpipe lightly, and then use a wire brush to remove any carbon deposits from the spark arrester portion of the tailpipe and inside of the tailpipe housing.



1. Tailpipe

- 2. Spark arrester
- 4. Insert the tailpipe into the muffler and align the bolt holes.
- Install the tailpipe by installing the bolts, and then tighten the bolts to the specified torque.

Tightening torque: Tailpipe bolt:

12 Nm(1.2 m·kgf, 8.5 ft·lbs)

A WARNING

POTENTIAL HAZARD

Improper cleaning of the spark arrester. Hot exhaust system.

WHAT CAN HAPPEN

Could injure the eyes.

Could cause burns.

Could cause carbon monoxide poisoning, possibly leading to death. Could start a fire.

HOW TO AVOID THE HAZARD

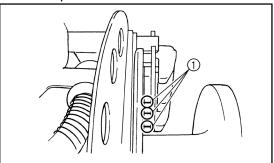
When cleaning the spark arrester: Always let the exhaust system cool prior to touching exhaust components. Do not start the engine when cleaning the exhaust system.

Valve Clearance

The correct valve clearance changes with use, resulting in improper fuel-air supply or engine noise. To prevent this, the valve clearance must be adjusted regularly. This adjustment however, should be left to a professional service technician.

Front Brake Pad Check

Each brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake system. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicator grooves have almost disappeared, have a dealer replace the brake pads as a set.



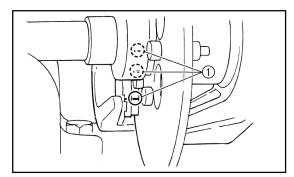
Brake pad wear indicator groove

NOTE:

The wheels need to be removed to check the brake pads. (See pages 8-4-18-42 for wheel removal and installation procedures.)

Rear brake pad check

Each brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake system. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicator grooves have almost disappeared, have a dealer replace the brake pads as a set.



1. Brake pad wear indicator groove

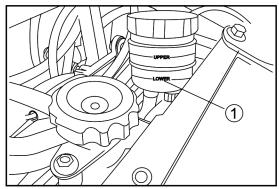
Checking the Brake Fluid Level

Insufficient brake fluid may let air enter the brake system, possibly causing the brakes to become ineffective.

Before riding, check that the brake fluid is above the minimum level mark and replenish if necessary. A low brake fluid level may indicate worn brake pads and/or brake system leakage. If the brake fluid level is low, be sure to check the brake pads for wear

and the brake system for leakage.

The brake fluid reservoir is located under the hood. (See pages 8-7—8-8 for hood opening and closing procedure.)



1. Minimum level mark

Observe these precautions:

 When checking the fluid level, make sure the top of the brake fluid reservoir is

level

 Use only the recommended quality brake fluid. Otherwise, the rubber seals may deteriorate, causing leakage and poor braking performance

Recommended brake fluid: DOT 4

- Refill with the same type of brake fluid. Mixing fluids may result a harmful chemical reaction and lead to poor braking performance.
- Be careful that water does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
- Have a dealer inspect the brake system if the brake fluid level goes down.

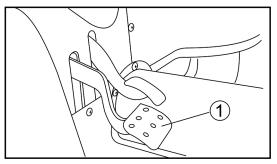
Brake Fluid Replacement

Complete fluid replacement should be done only by trained service personnel. Have a dealer replace the following components during periodic maintenance or when they are damaged or leaking.

- Replace the oil seals every two years.
- Replace the brake hoses every four years.

Checking the Brake Pedal

Have a dealer check the brakes at the intervals specified in the periodic maintenance and lubrication chart. There should be no free play in the brake pedal. The brakes should operate smoothly and there should be no brake drag. If the brakes feel soft or spongy, this could indicate air in the brake system. Have a dealer check the brake system if necessary.



Brake pedal

▲ WARNING

POTENTIAL HAZARD

Operating with improperly serviced or adjusted brakes.

WHAT CAN HAPPEN

You could lose braking ability, which could lead to an accident.

HOW TO AVOID THE HAZARD

After servicing:

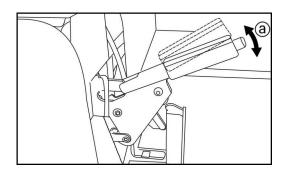
- Make sure the brakes operate smoothly and that the brake pedal position is correct.
- Make sure the brakes do not drag.
- All air must be bled from the brake system.

Replacement of brake components requires professional knowledge. These procedures should be performed by a dealer.

Parking brake lever free play adjustment

Periodically check the parking brake lever free play and adjust it if necessary.

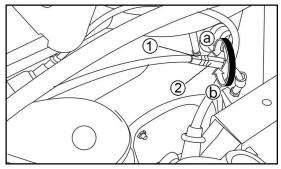
- Shift the drive select lever into low gear "L".
- Remove the seats. (See pages 4-16— 4-17 for seat removal and installation procedures.)
- 3. Remove the console. (See page 8-9 for console removal and installation procedures.)
- 4. Check the parking brake lever free play. The maximum free play is equal to one click of the parking brake lever. If necessary, adjust the free play as follows.



NOTE:

The parking brake lever must be released when checking and adjusting the parking brake lever free play.

5. Loosen the locknut.



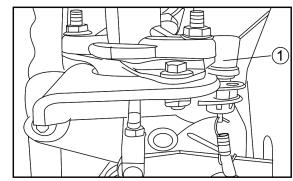
1. Locknut 2. Adjusting ntu

- 6. Turn the adjusting nut in direction ⓐ to increase the free play or in direction ⓑ to decrease the free play.
- 7. Tighten the locknut.
- 8. Install the console.
- 9. Install the seats.

Brake Light Switch Adjustment

The brake light switch, which is activated by the brake pedal, is properly adjusted when the brake light comes on just before braking takes effect. If necessary, adjust the brake light switch as follows.

- 10. Open the hood. (See pages 8-7—8-8 for hood opening and closing procedure.)
- 11. Turn the adjusting nut while holding the brake light switch in place. To make the brake light come on earlier, turn the adjusting nut in direction ⓐ. To make the brake light come on later, turn the adjusting nut in direction ⓑ.



1. Brake light switch.

2. Adjusting nut

Cable Inspection and Lubrication

▲ WARNING

POTENTIAL HAZARD

Damaged control cables.

WHAT CAN HAPPEN

Corrosion can result when the outer covering of control cables becomes damaged. Cables can also become frayed or kinked. Operation of controls could be restricted, which could cause an accident or injury.

HOW TO AVOID THE HAZARD

Inspect cables frequently. Replace damaged cables.

Lubricate the inner cables and the cable ends. If the cables do not operate smoothly, ask a dealer to replace them.

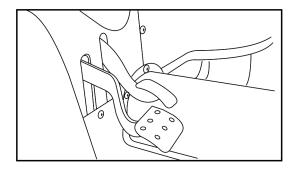
Recommended lubricant:

Engine oil: see page 10-2

Brake Pedal and Accelerator Pedal Lubrication

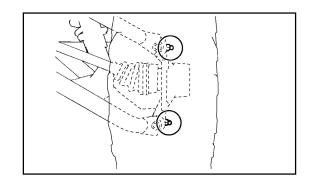
Lubricate the pivoting parts.

Recommended lubricant:
Lithium-based grease
(all-purpose grease)



Rear Knuckle Upper and Lower Pivot Lubrication

Lubricate the knuckle upper and lower pivots with a grease gun.



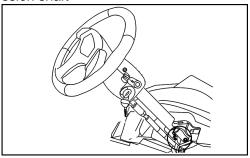
Recommended lubricant: Lithium-based grease

Steering Shaft Lubrication

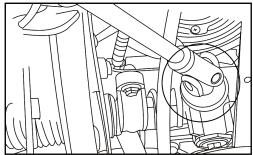
Lubricate the pivot points.

Recommended lubricant: Lithium-based grease (all-purpose grease)

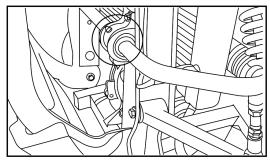
upper universal joint ,steering transmitssion shaft



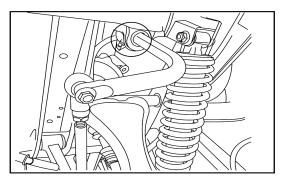
lower universal joint ,steering transmitssion shaft



front balance rod



rear balance rod



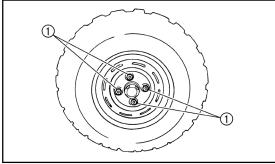
Wheel Removal

Loosen the wheel nuts.

Elevate the vehicle and place a suitable stand under the frame.

Remove the nuts from the wheel.

Remove the wheel.



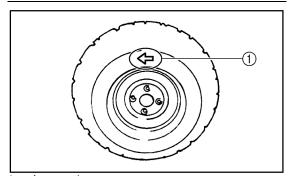
1. Nut (x4)

Wheel Installation

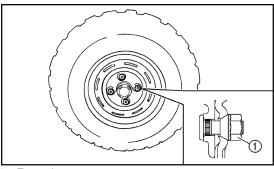
1. Install the wheel and the nuts.

NOTE:

- The arrow mark ← on the tire must point toward the rotating direction of the wheel.
- Tapered nuts are used for both the front and rear wheels. Install the nut with its tapered side towards the wheel.



1. Arrow mark



1. Tapered nut

- 2. Lower the vehicle so that the wheel is on the ground.
- 3. Tighten the wheel nuts to the specified torque.

Wheel nut torque:

Front: 70Nm (7.0 m·kgf, 49.7 ft·lbs) Rear: 70Nm (7.0 m·kgf, 49.7 ft·lbs)

Battery

This vehicle is equipped with a sealed-type battery. Therefore it is not necessary to check the electrolyte or add distilled water in the battery. If the battery seems to have discharged, consult a dealer.

CAUTION:

Do not try to remove the sealing caps of the battery cells. You may damage the battery.

WARNING

POTENTIAL HAZARD

Failure to handle batteries or battery electrolyte carefully.

WHAT CAN HAPPEN

You could be poisoned. You could be severely burned by the sulfuric acid in battery electrolyte. Batteries produce explosive gases.

HOW TO AVOID THE HAZARD

Avoid contact with skin, eyes or clothing. Always shield eyes when working near batteries. Keep out of reach of children.

Antidote:

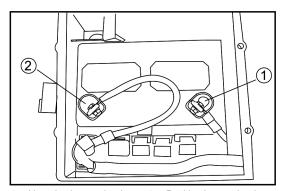
EXTERNAL: Flush with water.

INTERNAL: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Get prompt medical attention.

EYES: Flush with water for 15 minutes and get prompt medical attention. Keep batteries away from sparks, flames, cigarettes or other sources of ignition. Ventilate when charging or using in a closed space.

Battery Maintenance

- When the vehicle is not used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reinstallation.
- 2. Always make sure the connections are correct when putting the battery back in the vehicle.



1. Negative battery lead

2. Positive battery lead

CAUTION:

A special battery charger (constant voltage/ampere or constant voltage) is required for recharging a sealed-type battery. Using a conventional battery charger may shorten the battery life.

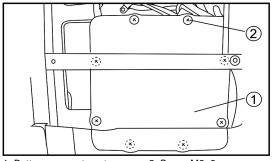
Fuse Replacement

The main fuse and the fuse box are located under the hood. (See pages 8-7-8-8 for hood opening and closing procedures.)

If a fuse is blown, turn off the ignition switch and install a new fuse of the specified amperage.

If a fuse is blown, replace it as follows.

1. Remove the battery compartment cover by lifting it up and pulling it out.



1. Battery compartment cover 2. Screw M6×8

2. Turn the key to "OFF" and turn off the electrical circuit in question.

CAUTION:

To prevent accidental short-circuiting, turn off the ignition switch when checking or replacing a fuse.

WARNING

OTENTIAL HAZARD

Using an improper fuse

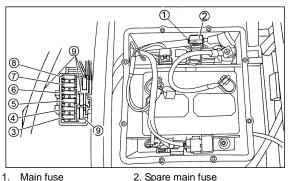
WHAT CAN HAPPEN

An improper fuse can cause damage to the electrical system, which could lead to a fire.

HOW TO AVOID THE HAZARD

Always use a fuse of the specified rating. Never use a material in place of the proper fuse.

3. Remove the blown fuse, and then install a new fuse of the specified amperage.



4. Ignition fuse

- Main fuse
 - Headlight fuse
- Auxiliary DC jack fuse
- Four-wheel-drive motor fuse
- Signaling system fuse
- Backup fuse (for odometer and clock)
- Carburetor warmer fuse
- 10. Spare fuse (x3)

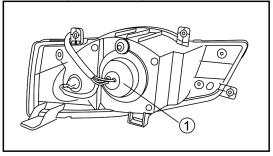
Specified Fuse: Main Fuse: 30.0A Headlight Fuse: 15.0A Ignition Fuse: 10.0A Auxiliary DC Jack Fuse: 10.0A Signaling System Fuse: 10.0A Carburetor Warmer Fuse: 10.0A Four-Wheel-Drive Motor 3.0A Fuse: Backup Fuse: 10.0A

- 4. Turn the key to "ON" and turn on the electrical circuit in question to check if the device operates.
- 5. If the fuse immediately blows again, have a dealer check the electrical system.
- 6. Install the battery compartment cover.
- 7. Close the hood.

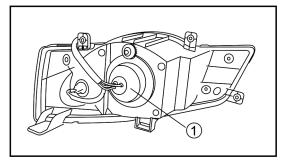
Replacing a Headlight Bulb

If a headlight bulb burns out, replace it as follows.

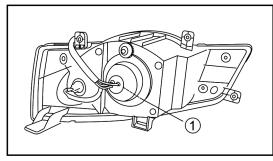
- 1. Lift the hood up. (See pages 8-7-8-8 for hood opening and closing procedures.)
- 2. Remove the cover at the rear of the headlight by pulling it off.



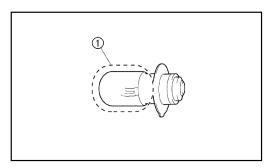
- 1. Cover at the rear of the headlight
- 3. Remove the headlight bulb holder cover by pulling it off.



- 1. Headlight bulb holder cover
- Remove the headlight bulb holder by pushing it in and turning it counter clockwise.
- 5. Remove the defective bulb by pulling it out.
- 6. Insert a new headlight bulb into the bulb holder by pushing it in.



1. Headlight bulb holder



1. Do not touch the glass part of the bulb.

▲ WARNING

POTENTIAL HAZARD

A headlight bulb is hot when it is on and immediately after it is turned off.

WHAT CAN HAPPEN

You can be burned, or a fire could start if the bulb touches something flammable.

HOW TO AVOID THE HAZARD

Wait for the bulb to cool before touching or removing it.

CAUTION:

Do not touch the glass part of the headlight bulb to keep it free from oil, otherwise the transparency of the glass, the luminosity of the bulb, and the bulb life will be adversely affected. Thoroughly clean off any dirt and fingerprints on the headlight bulb using a cloth moistened with alcohol or thinner.

- 7. Install the bulb holder by pushing it in and turning it clockwise.
- 8. Install the bulb holder cover and the cover at the rear of the headlight.

CAUTION:

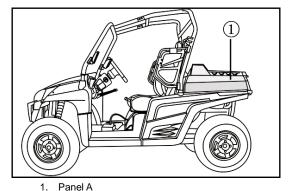
Make sure the headlight bulb holder cover is securely fitted over the bulb holder and seated properly.

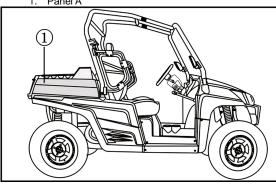
- 9. Close the hood.
- 10. Adjust the headlight beam if necessary.

Tail/Brake Light Bulb Replacement

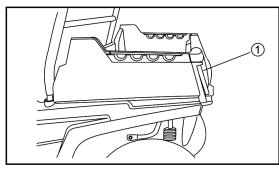
If a tail/brake light bulb burns out, replace it as follows:

1. Remove panel A (if replacing the left tail/brake bulb) or panel B (if replacing the right tail/brake bulb) by removing the quick fasteners and bolts.



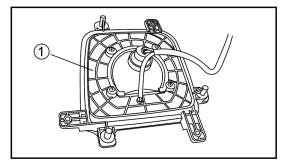


1. Panel B



1. Cargo bed

- 2. Remove the bulb holder (together with the bulb) by turning it counter clockwise.
- Push the defective bulb in and turn it counter clockwise to remove it from the bulb holder.
- 4. Push a new bulb in and turn it clockwise to install in the bulb holder.
- 5. Install the bulb holder (together with the bulb) by turning it clockwise.



1. Tail/brake light bulb holder

6. Install the panel by installing the quick fasteners and bolts, and then tighten the bolts to the specified torque.

Tightening torque:

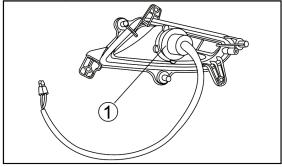
Panel bolt:

6.5N·m (0.65 m·kgf, 4.7 ft·lbs)

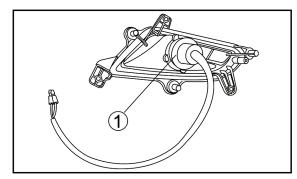
Replacing a Front Turning Light Bulb

If a front turning light bulb burns out, replace it as follows.

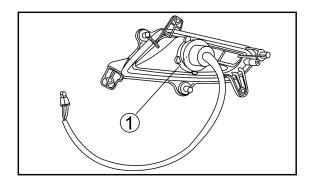
- 1. Lift the hood up. (See pages 8-7-8-8 for hood opening and closing procedures.)
- 2. Remove the cover at the rear of the front turning light by pulling it off.



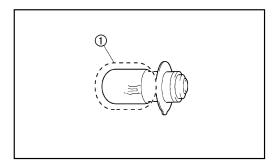
- 1. Cover at the rear of the front turning light
- 3. Remove the front turning light bulb holder cover by pulling it off.



- 1. Front turning light bulb holder cover
- Remove the front turning light bulb holder by pushing it in and turning it counter clockwise.
- Remove the defective bulb by pulling it out.
- 6. Insert a new front turning light bulb into the bulb holder by pushing it in.



1. Front turning light bulb holder

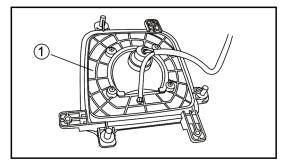


1. Do not touch the glass part of the bulb.

Replacing a Rear Turning Light Bulb

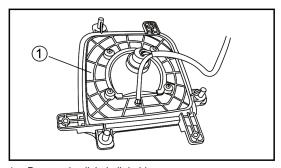
If a rear turning light bulb burns out, replace it as follows.

- 1. Lift the hood up. (See pages 8-7-8-8 for hood opening and closing procedures.)
- 2. Remove the cover at the rear of the rear turning light by pulling it off.



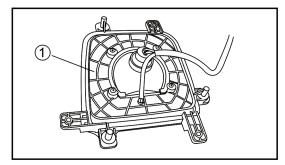
1. Cover at the rear of the rear turning light

3. Remove the rear turning light bulb holder cover by pulling it off.

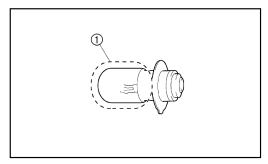


1. Rear turning light bulb holder cover

- 4. Remove the rear turning light bulb holder by pushing it in and turning it counter clockwise.
- 5. Remove the defective bulb by pulling it out.
- 6. Insert a new rear turning light bulb into the bulb holder by pushing it in.



1. Rear turning light bulb holder



1. Do not touch the glass part of the bulb.

Troubleshooting

Although vehicles receive a rigid inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks. If your vehicle requires any repair, take it to a dealer. The skilled technicians at a dealership have the tools, experience, and know how to properly service your vehicle. Imitation parts may look like original parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive

WARNING

POTENTIAL HAZARD

Checking the fuel system while smoking or near an open flame.

WHAT CAN HAPPEN

Fuel can ignite or explode, causing severe injury or property damage.

HOW TO AVOID THE HAZARD

Do not smoke when checking the fuel system. Make sure there are on open flames or sparks in the area, including pilot lights from water heaters of furnaces.

Check and solution to Common Problems in Vehicle

Here you can see some tables on the common problems which may come up when you are driving a UTV, which will help to solve these problems.

To repair a UTV requires technical skills, if you cannot fix it up yourself, please contact your dealer.

Table1: Check and Solution of Common Problems in Appearance parts and impact fittings.

S/N	Problems	Solutions	
	Covers are eracked up	Covers are cracked up when go a crossing the field.	
1 when go a crossing field.	Covers are cracked up when go a crossing the	2.Change for new plastic covers.	
	neid.	3.Re-paste the stickers and re-rivet the warning lables.	
2 tion plate	Vehicle's bottom protect-	1.Check if the reduction gear box and differential in front and rear bridge are damaged or if there is any oil leakage.	
	tion plate is damaged by prominence on ground.	2.Check if the bottom of engine is damaged or if there is any oil leakage.	
		3.Change for new bottom protection plate.	

Table 2: Check and Solution of Common Problems in Brake System .

S/N	Problems	Solutions
		1.Check if the handle of parking brake return to its position.
1	Brake system is locked	2.Check if the brake discs are deformed.
	up.	3.Check if the calipers' hydraulic cylinders get stuck, or the fixing parts of calipers are deformed.
		1.Check if the brake disc are over-worn.
	brake performance goes down.	2.Check if the brake block in calipers are over-worn, or contaminated by stuffs which can reduce friction.
		Check if there is any leakage in brake system's oil lines or conjunctions.
2		4.Check if the post rod in brake master cylinder is deformed.
		5.Check if there is any air go into the oil lines, and drain the air with special equipment.
		6.Check if the remain oil in master cylinders of front and rear brake is still above the lowest level.
	Front or rear brake system makes affricate	1.Check if the brake discs are deformed.
3	noise, or the brake discs	2.Check if the calipers' hydraulic cylinders get stuck, or the fixing parts of calipers are deformed.

S/N	Problems Solutions						
4	Vehicle go deflected when braked at high speed.	1.Check if left & right brake force' deviation of front brake is with specified limit. 2.Check if the brake force of front brake go down, which cause the rear wheels are locked up before the front wheels when braked. 3.Check if spring force's deviation of shock absorbers in front left & right suspension are within specified limit. 4.Check if the damper rubber sleeves connecting front suspension rock and frame are damaged.					

Table 3: Check and Solution of Common Problems in Electrical System

S/N	Problems	Solutions					
		1.check if the headlight switch functions well.					
1	Lamps don't work.	2.Check if the wires are broken.					
		3.Check if the lamps or bulbs are broken.					
		Check if the control switch on meter board works well.					
2	Vehicle cannot go into 4 drive mode.	 Check if the differential lock control magneto plug in rear bridge reduction gear box are broken. 					
		3.Check if the wire is broken.					
3	rear differential won't work.	1.Check if the control switch on meter board works well.					

S/N	Problems	Solutions
3	rear differential won't work.	2.Check if the differential lock control magneto plug in rear bridge reduction gear box are broken.
	WOIK.	3.Check if the wire is broken.
		1.Check if the sensor is broken.
Meter display abnormal-		2.Check if the meter is broken.
-	ly.	3.Check if the surface of speed sensor is contamniated with iron dust.
	Ctart awitch an mater	1.Check if the switch is broken.
5	Start switch on meter board won't work	2.Check if the wire is broken.
	Board Worrt Work	3.Check if the ECU in electrical injection system is broken.

Table 4: Check and Solution of Common Problems in Running System

S/N	Problems	Solutions
1	Swing clearance of stee- ring wheel is too big	1.Check the fix screws connecting steering rod to steering stem and knuckle to find out if they are loose or broken 2.Check the bulbs on the ends of steering rod to find out if they are broken 3.Check the clearance between gears of steering machine if it is too big.
2	Front wheels shake seriously in running.	1.Check the bearings in knuckles if they are broken.

S/N	Problems	Solutions
		2.Check the main ball pins to find out if they are broken.
		3. Check the lock screws of front wheels and axles to find out if they are loose or broken.
2	Front wheels shake seriously in running.	4.Check the inner splines of front wheel hubs and outer splines of front wheel axles to find out if they are worn or broken.
		5. Check rubber bushs betweenthe front suspension rocks and frame to find out if they are broken.
	Rear wheels shake seriously in running.	 Check the bearing in rear bridge bearing seat to find out if they are broken.
		2.Check the sliding bearing connecting rear bridge and rocks to find out if they are worn or loose.
3		3.Check the inner splines of rear wheel hubs and outer splines of rear wheel axles to find out if they are worn or broken.
		4.Check the lock screws of rear wheels and axles to find out if they are loose or broken.
		5.Check rubber bushs between the rear suspension rock and frame to find out if they are broken.
	Mhaala iumn aariaualu in	1.Check if the rims are deformed.
4	Wheels jump seriously in running.	2.Check if the rear wheel axles are bent.
		3.Check if the tyres are worn or deformed.

S/N	Problems	Solutions
5	Shock absorbers become soft and not comfort-table in running.	1.Check if overloaded. 2.Check if the springs are two soft after after long time running. 3.Check if the shock absorbers lose their damping force in
		their travel.
6	Front bridge makes noise in running.	 1.Check if the spline of intermediate driving shaft is broken. 2.Check if the splines in left & right drive shafts of front & rear bridges are broken. 3.Check if the gears in rear bridge reduction gear box and differential are over worn.
		 Check the dust cover of constant velocity universal joint in right & left drive shafts.

Table5: Check and Solution of Common Problems in Engine System

S/N	Problems	Solutions			
		Check the throttle cable for seizure			
	Idle speed can not be adjusted	2. Check the adjustment knob of carburetor for damage or			
1		wear			
	,	3.Check the needle of carburetor to see if it can be placed			
		to the bottom			
		1.Check the battery voltage for Within specified value			
2	Idle speed is not stable	2.Check the rectifier output voltage for within specified value			
		3.Check MEUI for failure			
		1.Check if there is one cylinder not working.			
3	Power performance is	ance is 2.Check gasoline nozzle for block			
3	falling	3.Check and clean core of air cleaner			
		4.Check muffler for partly block and clean spark arrestor			
		Check air cleaner and admission line for leak.			
4	Popping in engine	2.Check the connection joint of exhaust pipe with engine or muffler for leak			
		3.Check the grade of gasoline to see if it's too low			
	F : : !!!!! !!!!	1.Check if the battery voltage goes down when			
5	Engine is difficult to start	temperature goes down 2.If the temperature is under -18°C, have the vehicle placed			
	at low temperature	in warmer place for start.			

S/N	Problems	Solutions
		1.Check the cooling fin of radiator for blocked by soil or dirt
6	Coolant boils	2.Check the speed sensor of radiator for damage and Check fan for failure
0	Coolant bolls	3.Check if antifreeze can meet the requirement stated in the owner manual.
		4.Check the coolant loop for mixed with air
	Engine can not start	1.Check the battery ,which with low electricity may cause the motor failure
		2.Check the starting motor for damage
		3.Check if MEUI can work in good condition
_		4.Check if the ignition loop can work in good condition
7		5.Check if the spark plug is foulled or burned
		6.Check if the ignition signal is in good condition
		7.Check if the air cleaner is blocked
		8.Check if the oil circuit is smooth
		9.Check if the exhaust system is blocked
		Check horn function: normal or unnormal.
8	Horn not work	2. Check cable damaged or not Check patch connected or
	TIOTH HOL WORK	not.
		3. Check the speaker: damage or not.

▲ WARNING

POTENTIAL HAZARD

Removing the radiator cap when the engine and radiator are still hot.

WHAT CAN HAPPEN

You could be burned by hot fluid and steam blown out under pressure.

HOW TO AVOID THE HAZARD

Wait for the engine to cool before removing the radiator cap. Always use a thick rag over the cap. Allow any remaining pressure to escape before completely removing the cap.

NOTE:

If it is difficult to get the recommended coolant, tap water can be temporarily used, provided that it is changed to the recommended coolant as soon as possible.

PERIODIC MAINTENANCE AND ADJUSTMENT

Periodic inspection, adjustment and lubrication will keep your vehicle in the safest and most efficient condition possible. Safety is an obligation of the vehicle owner. The most important points of vehicle inspection, adjustment and lubrication are explained on the following pages.

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the Owner's tool kit are sufficient for this purpose, except that a torque wrench is also necessary to properly tighten nuts and bolts.

NOTE:

If you do not have a torque wrench available during a service operation requiring one, take your vehicle to dealer to check the torque settings and adjust them as necessary.

▲ WARNING

POTENTIAL HAZARD

Servicing an engine while it is running. WHAT CAN HAPPEN

Moving parts can catch clothing or parts of the body, causing injury.

Electrical components can cause shocks or can start fires.

HOW TO AVOID THE HAZARD

Turn off the engine when performing maintenance unless otherwise specified.

Have a dealer perform service if you are not familiar with vehicle service.

▲ WARNING

POTENTIAL HAZARD

Operating this vehicle with improper modifications.

WHAT CAN HAPPEN

Improper installation of accessories or modification of this vehicle may cause changes in handling which in some situations could lead to an accident.

HOW TO AVOID THE HAZARD

Never modify this vehicle through improper installation or use of accessories. All parts and accessories added to this vehicle should be genuine or equivalent components designed for use on this vehicle and should be installed and used according to instructions.

If you have questions, consult an authorized vehicle dealer.

Periodic Maintenance Chart for the Emission Control System NOTE:

- For vehicles not equipped with an odometer or hour meter, follow the month maintenance intervals.
- For vehicles equipped with an odometer or an hour meter, follow the km(mi) or hours maintenance intervals. However, keep in mind that if the vehicle isn't used for a long period of time, the month maintenance intervals should be followed.
- Items marked with an asterisk should be performed by dealer as they require special tools, data and technical skills.

					INITIAL		EVE	RY
	ROUTINE	Whichever	Month	1	3	6	6	12
ITEM		Comes first	Km (mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)
			hours	20	75	150	150	300
Fuel Line*	 Check fuel hose for cra 	icks or damage.				0	0	0
ruei Lille	 Replace if necessary. 					0	0	O
Valves*	Check valve clearance			_		_	_	_
valves	Adjust if necessary.			0		0	0	0
	Check condition.							
Spark Plug	 Adjust gap and clean. 			0	0	0	0	0
	Replace if necessary.							
Carburetor*	Check idle speed/starte	er operation.			_	_	_	
Carburetor	Adjust if necessary.				0	0	0	0
Crankcase Breather	Check breather hose for	or cracks or dama	ige.			0	0	0
System*	Replace if necessary.					0	0	O
	Check for leakage.							
Exhaust System*	 Tighten if necessary. 					0	0	0
	Replace gasket(s) if necessary.							
Spark Arrester	Clean.					0	0	0
Sensor • Clean.			Clean for each 500km (312ml)					

General Maintenance and Lubrication Chart

					INITIAL	EVERY		
		Whichever	Month	1	3	6	6	12
ITEM	ROUTINE	Comes first	Km	320	1,200	2,400	2,400	4,800
		⇒	(mi) hours	(200)	(750) 75	(1,500) 150	(1,500) 150	(3,000)
Cooling System	Check coolant leakage. Repair if necessary. Replace coolant every :		Hours	0	0	0	0	°
Air Filter Elements (Engine and Air Intake Duct)	Clean. Replace if necessary.			Every 20—40 hours (More often in wet or dusty areas.)				as.)
Engine Oil	Replace (Warm engine	before draining.)		0		0	0	0
Engine Oil Filter Cartridge	Replace			0		0	0	0
Final Gear Oil	Check oil level. Check oil leakage. Replace.							
Differential Gear Oil				0				0
Front Brake*	NOTE page 8-6.				0	0	0	0
Rear Brake*	 Check operation/brake NOTE page 8-6. Correct if necessary. Rep 		Ü	0	0	0	0	0
Accelerator Pedal*	Check operation and free	ee play.		0	0	0	0	0
CVT-Belt*	Check operation.Check for wear, cracks,	Check operation. Check for wear, cracks, or damage.		0			0	0
Wheels*	Check balance/damage/run out. Replace if necessary.			0		0	0	0
Wheel Bearings* • Check bearing assemblies for looseness/damage. • Repair if damaged.								
Front and Rear Suspension*	Check operation and foCheck toe-in/Adjust if n					0		0

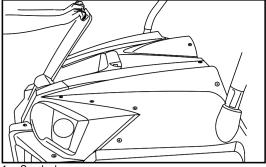
					INITIAL		EVE	RY
		Whichever	Month	1	3	6	6	12
ITEM	ROUTINE	Comes first	Km (mi)	320 (200)	1,200 (750)	2,400 (1,500)	2,400 (1,500)	4,800 (3,000)
		□□□□	hours	20	75	150	150	300
Steering System*	Check operation and damaged. Check toe-in. Adjust if	for looseness. F	Replace if	0	0	0	0	0
Rear Upper and Lower Knuckle Pivots*	Lubricate with lithium-based grease.				0	0	0	
Drive Shaft Universal Joint*	Lubricate with lithium-based grease.				0	0	0	
Engine Mount*	Check for cracks or darCheck bolt tightness.	nage.				0	0	0
Front and Rear Axle Boots*	Check operation.Replace if damaged.			0				0
Anti-Roll Bar Bushings*	Check for cracks or dar	nage.				0	0	0
Fittings and Fasteners*	Check all chassis fittingCheck if necessary.	s and fasteners.		0	0	0	0	0

NOTE:

- Recommended brake fluid: DOT4
- Brake fluid replacement.
 - When disassembling the master cylinder or caliper, replace the brake fluid. Normally check the brake fluid level and add fluid as required.
 - On the inner parts of the master cylinder and caliper, replace the oil seals every two years.
- Replace the brake hoses every four years, or if cracked or damaged.

Sundry Box Cover To Open/ Close

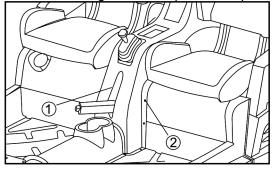
Unhook the hood latches, and then slowly tilt the sundry box cover up. To close, tilt cover back to closed position and fasten the latches.



1. Sundry box cover

Engine Cover To Open/ Close

- 1. Remove two seats (see page 4-16)
- Unscrew all the screws on the engine cover.
- 3. Pull the engine cover upward to open it.



1. Engine cover 2. Screw (M6x12)

CAUTION:

When installing the engine cover, be sure not to pinch the cables or wires.

Engine Oil and Oil Filter Cartridge

The engine oil level should be checked before each operation. In addition, the oil must be changed and the oil filter cartridge replaced at the intervals specified in the periodic maintenance and lubrication chart.

To Check Engine Oil Level

- 1. Place the vehicle on a level surface.
- Remove the console. (See page 8-9 for console removal and installation procedures.)
- 3. Check the engine oil level on a cold engine.

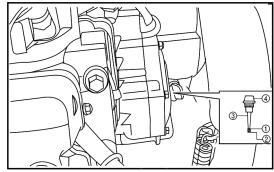
NOTE:

If the engine was started before checking the oil level, be sure to warm up the engine sufficiently, and then wait at least ten minutes until the oil settles for an accurate reading.

- 4. Remove the engine oil filler cap and wipe off the dipstick with a clean rag.
- 5. Insert the dipstick in the oil filler hole (without screwing it in), and then remove it again to check the oil level.

NOTE:

The engine oil should be between the minimum and maximum level marks.



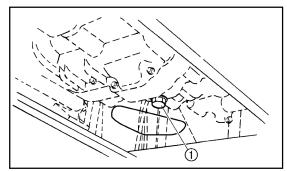
- 1. Maximum level mark
- 2. Minimum level mark

Dipstick

- 4. Engine oil filler cap
- If the engine oil is at or below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.
- 7. Insert the dipstick into the oil filler hole, and then tighten the oil filler cap.
- 8. Install the console.

To Change the Engine Oil (With or Without Oil Filter Cartridge Replacement)

- Remove the console. (See page 8-9 for console removal and installation procedures.)
- Place an oil pan under the engine to collect the used oil, and then remove the engine oil filler cap.
- 3. Remove the engine oil drain bolt to drain the oil from the crankcase.

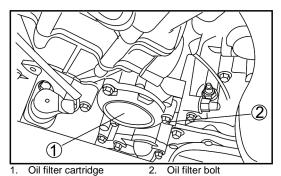


1. Engine oil drain bolt

NOTE:

Skip steps 4-6 if the oil filter cartridge is not being replaced.

4. Remove the oil filter cartridge with an oil filter wrench.



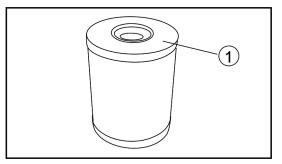
NOTE:

An oil filter wrench is available at a nearby dealer.

5. Apply a light coat of engine oil to the O-ring of the new oil filter cartridge.

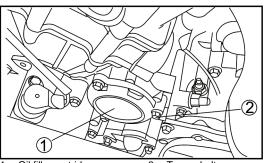
NOTE:

Make sure the O-ring is seated properly.



- 1. O-ring
- 6. Install the new oil filter cartridge with an oil filter wrench, and then tighten it to the specified torque with a torque wrench.

Tightening torque:
Oil filter cartridge:
17Nm (1.7m·kgf, 12 ft·lbs)



1. Oil filler cartridge

- 2. Torque bolt
- 7. Install the engine oil drain bolt, and then tighten it to the specified torque.

Tightening torque: Engine oil drain bolt: 24Nm (2.4m·kgf, 17 ft·lbs) 8. Add the specified amount of recommended engine oil, and then install the engine oil filler cap and tighten it.

See page 10-2.
Oil quantity:
Without oil filter cartridge replacement:
1.05L (1.67 lmp qt, 2.01 US qt)
With oil filter cartridge replacement:
2.0 L (1.76 lmp qt, 2.11 US qt)

Recommended engine oil:

CAUTION:

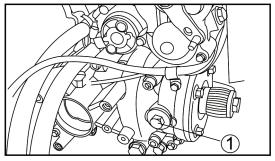
- In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of "CD" or oils of a higher quality than specified. In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.
- Make sure that no foreign material enters the crankcase.
- Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.
- 10.Turn the engine off, wait at least ten minutes, and then check the oil level and correct it if necessary.
- 11.Install the console.

To change the Reduction Gear Box Oil

- 1. Remove oil inlet bolt
- 2. Remove oil outlet bolt, drain the oil of gear box and screw up oil outlet bolt.

Final Gear Oil

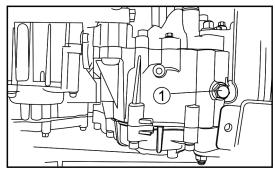
- 3. Add sufficient engine oil
- 4. Screw up oil inlet bolt.



1. Oil inlet bolt

Tighlening torgue:

Oil inlet bolt: 24N.m (2.4m·kgf, 17 ft·lbs)
Oil outlet bolt: 24N.m (2.4m·kgf, 17 ft·lbs)



1. Oil outlet bolt

Recommended engine oil:

See page 10-2.

Oil quantity:

Without oil filter cartridge replacement:

1.05L (1.67 lmp qt, 2.01 US qt)

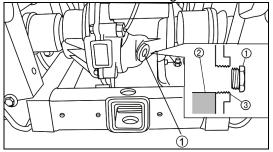
With oil filter cartridge replacement:

2.0 L (1.76 lmp qt, 2.11 US qt)

Final Gear Oil

Checking the Final Gear Oil Level

- 1. Place the vehicle on a level surface.
- 2. Remove the oil filler bolt, and then check the oil level in the final gear case.



- 1. oil filler bolt
- 2. Final gear oil
- 3. Correct oil level

NOTE:

The oil level should be at the brim of the filler hole.

3. If the oil is below the brim of the filler hole, add sufficient oil of the recommended type to raise it to the correct level.

CAUTION:

Be sure no foreign material enters the final gear case.

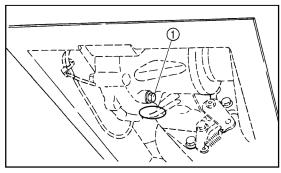
4. Install the oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Final gear oil filler bolt: 23 Nm (2.3 m·kgf, 16.3 ft·lbs)

Changing the Final Gear Oil

- 1. Place the vehicle on a level surface.
- Place a container under the final gear case to collect the used oil.
- 3. Remove the oil filler bolt and the drain bolt to drain the oil.



- 1. Final gear oil drain bolt
- 4. Install the drain bolt, and then tighten it to the specified torque.

Tightening torque:

Final gear oil drain bolt:

20 Nm (2.0 m·kgf, 14 ft·lbs)

5. Add the recommended final gear oil up to the brim of the filler hole.

Recommended oil:

SAE 80 API GL-4Hypoid gear oil Oil quantity:

0.4 L (0.35 Imp qt, 0.42 US qt)

CAUTION:

Be sure no foreign material enters the final gear case.

6. Install the oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Final gear oil filler bolt:

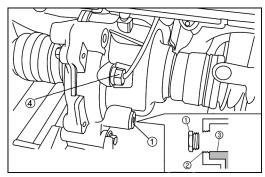
23 Nm (2.3 m·kgf, 16.3 ft·lbs)

7. Check for oil leakage. If oil leakage is found, check for the cause.

Differential Gear Oil

Checking the Differential Gear Oil Level

- 1. Place the vehicle on a level surface.
- Remove the differential gear oil filler bolt and check the oil level. It should be up to the brim of the filler hole. If the level is low, add sufficient oil of the recommended type to raise it to the specified level.



- Speed sensor
- 2. Correct oil level
- 3. Differential gear oil
- 4. oil level sensor

CAUTION:

- 1.Be sure no foreign material enters the differential gear case.
- 2.Please clean the sensor every 500km (310miles).

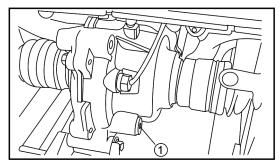
2. Install the differential gear oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Differential gear oil filler bolt: 23Nm (2.3 m·kgf, 16.3 ft·lbs)

Changing the Differential Gear Oil

- 1. Place the vehicle on a level surface.
- 2. Place a container under the differential gear case to collect the used oil.
- Remove the differential gear oil filler bolt and differential gear oil drain bolt to drain the oil.



1. Differential gear oil drain bolt

4. Install the differential gear oil drain bolt, and tighten it to the specified torque.

Tightening torque:

Differential gear oil drain bolt: 23Nm (2.3m-kgf, 16.3 ft-lbs)

5. Fill the differential gear case with the recommended oil.

Recommended oil:

SAE 80 API GL-5 Hypoid gear oil Oil quantity:

0.1 L (0.085 lmp qt, 0.105 US qt)

CAUTION:

Be sure no foreign material enters the differential gear case.

6. Install the differential gear oil filler bolt, and then tighten it to the specified torque.

Tightening torque:

Differential gear oil filler bolt: 23Nm (2.3m·kgf, 16.3 ft·lbs)

7. Check for oil leakage. If oil leakage is found, check for the cause.

Coolant

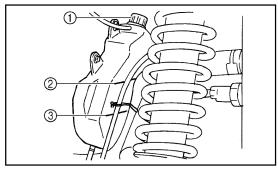
The coolant level should be checked before each ride.

Checking the Coolant Level

- 1. Place the vehicle on a level surface.
- 2. Open the hood. (See pages 8-7—8-8 for hood opening and closing procedures.)
- Check the coolant level in the coolant reservoir when the engine is cold as the coolant level varies with engine temperature.

NOTE:

The coolant should be between the minimum and maximum level marks.



- 1. Coolant reservoir cap
- Maximum level mark
- 3. Minimum level mark
- 4. If the coolant is at or below the minimum level mark, remove the reservoir cap, add coolant to the maximum level mark, install the reservoir cap, and then close the hood.

Coolant reservoir capacity (up to the maximum level mark): 0.627L(0.555lmp qt, 0.663US qt)

CAUTION:

Mix anti freeze with distilled water only. However, if distilled water is not available, soft water may be used for refilling.

Changing the Coolant

The coolant must be changed by a dealer at the intervals specified in the periodic maintenance and lubrication chart.

Recommended antifreeze:

High quality ethylene glycol antifreeze containing corrosion inhibitors for aluminum engines.

Antifreeze and water mixing ratio:

1:1

Total amount:

1.32L (1.16 lmp qt, 1.40 US qt)

Coolant reservoir capacity

(up to the maximum level mark):

0.627 L (0.55 lmp qt, 0.65 US qt)

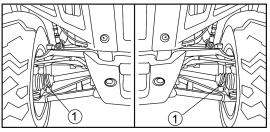
NOTE:

- Adding water instead of coolant lowers the antifreeze content of the coolant. If water is used instead of coolant, have a dealer check the antifreeze content of the coolant as soon as possible.
- The radiator fan is automatically switched on or off according to the coolant temperature in the radiator.

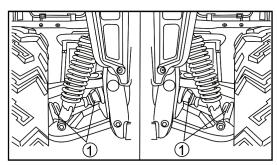
If your vehicle overheats, see page 8-45 for details.

Axle Boots

Check the protective boots for holes or tears. If any damage is found, have them replaced by a dealer.



1. Front axle boot (x2 each side)

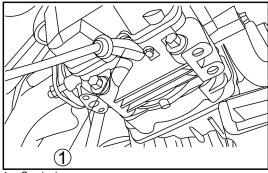


1. Rear axle boot (x2 each side)

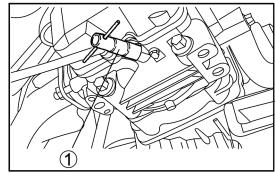
Spark Plug Inspection

Removal

- 1. Remove hood (See pages 8-6)
- 2. Remove the spark plug cap.
- 3. Use the spark plug wrench in the tool kit to remove the spark plug as shown.



Spark plug cap



1. Spark plug wrench

Inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine.

The ideal color of the porcelain insulator around the center electrode is a medium to light tan for a vehicle that is being ridden normally.

Do not attempt to diagnose such problems

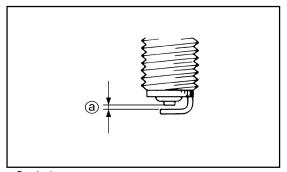
yourself.

Instead, take the vehicle to a dealer. You should periodically remove and inspect the spark plug because heat and deposits will cause the spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

Specified spark plug: DPR8EA-9 (NGK)

Installation

1. Measure the electrode gap with a wire thickness gauge and, if necessary, adjust the gap to specification.



a. Spark plug gap

Spark plug gap: 0.8-0.9mm (0.031-0.035 in)

- Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.
- 3. Install the spark plug and tighten it to the specified torque.

Tightening torque:

Spark plug:

17.5 Nm(1.75 m·kgf, 12.4 ft·lbs)

NOTE:

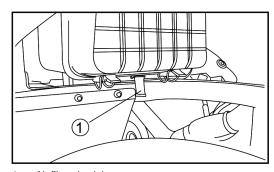
If a torque wrench is not available when you are installing the spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.

- 4. Install the spark plug cap.
- 5. Lower the cargo bed.

Cleaning the Engine Air Filter Element

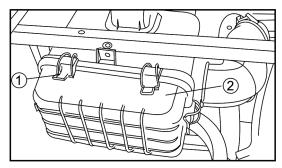
NOTE:

There is a check hose at the bottom of the air filter case. If dust or water collects in this hose, empty the hose and clean the air filter element and air filter case.



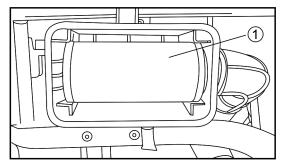
Air filter check hose

- Remove the seats. (See pages 4-16 4-17 for seat removal and installation procedure.)
- 2. Remove the Engine cover. (See page 8-9 for Engine cover removal and installation procedure.)
- 3. Remove the connecting rubber tube between air cleaner and throttle valve and the screws fixing the air cleaner, and then remove the air cleaner.

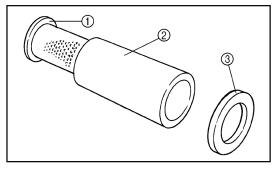


- 1. Holder (x6)
- 2. Air filter case cover

- 4. Remove the air filter element.
- 5. Remove the sponge material from its frame.



1. Air filter element



1. Air filter frame

- 2. Sponge material
- 3. Element retaining plate
- 6. Wash the sponge material gently but thoroughly in solvent.

WARNING

POTENTIAL HAZARD

Using low flash point solvents or gasoline to clean the sponge material.

WHAT CAN HAPPEN

Low flash point solvents or gasoline can catch fire or explode.

HOW TO AVOID THE HAZARD

Use parts cleaning solvent to clean the sponge material.

7. Squeeze the excess solvent out of the sponge material and let it dry.

CAUTION:

Do not twist the sponge material when squeezing it.

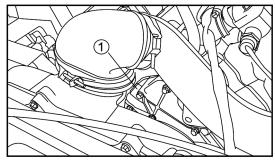
8. Inspect the sponge material and replace it if damaged.

9. Thoroughly apply foam air filter oil or other quality liquid foam air filter oil (not spray type) to the sponge material.

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1	v		ᆫ	

The sponge material should be wet but not dripping.

- 10. Pull the sponge material over its frame.
- 11. Install the air filter element.
- 12. Install the air filter case cover and be sure the crankcase breather hose is connected.



1. Crankcase breather hose

- 13.Install the engine cover.
- 14.Install the seats.

NOTE:_

The air filter element should be cleaned every 20-40 hours. It should be cleaned and lubricated more often if the vehicle is operated in extremely dusty areas. Each time air filter element maintenance is performed, check the air inlet to the air filter

case for obstructions. Check the air filter element rubber joint to the carburetor and manifold fittings securely to avoid the possibility of unfiltered air entering the engine.

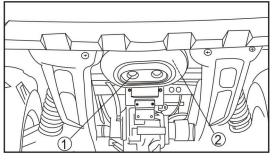
CAUTION:

Never operate the engine with the air filter element removed. This will allow unfiltered air to enter, causing rapid engine wear and possible engine damage. Additionally, operation without the air filter element will affect carburetor jetting with subsequent poor performance and possible engine overheating.

Cleaning the Spark Arrester

Be sure the exhaust pipe and muffler are cool before cleaning the spark arrester.

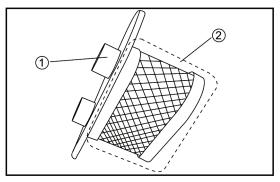
1. Remove the bolts.



1, muffler

2. Spark Arrester

- 2. Remove the tailpipe by pulling it out of the muffler
- 3. Tap the tailpipe lightly, and then use a wire brush to remove any carbon deposits from the spark arrester portion of the tailpipe and inside of the tailpipe housing.



1. Tailpipe

- 2. Spark arrester
- 4. Insert the tailpipe into the muffler and align the bolt holes.
- Install the tailpipe by installing the bolts, and then tighten the bolts to the specified torque.

Tightening torque: Tailpipe bolt:

12 Nm(1.2 m·kgf, 8.5 ft·lbs)

WARNING

POTENTIAL HAZARD

Improper cleaning of the spark arrester. Hot exhaust system.

WHAT CAN HAPPEN

Could injure the eyes.

Could cause burns.

Could cause carbon monoxide poisoning, possibly leading to death. Could start a fire.

HOW TO AVOID THE HAZARD

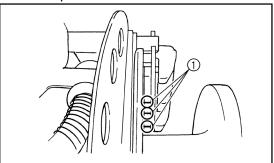
When cleaning the spark arrester: Always let the exhaust system cool prior to touching exhaust components. Do not start the engine when cleaning the exhaust system.

Valve Clearance

The correct valve clearance changes with use, resulting in improper fuel-air supply or engine noise. To prevent this, the valve clearance must be adjusted regularly. This adjustment however, should be left to a professional service technician.

Front Brake Pad Check

Each brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake system. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicator grooves have almost disappeared, have a dealer replace the brake pads as a set.



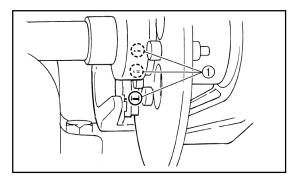
Brake pad wear indicator groove

NOTE:

The wheels need to be removed to check the brake pads. (See pages 8-4-18-42 for wheel removal and installation procedures.)

Rear brake pad check

Each brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake system. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicator grooves have almost disappeared, have a dealer replace the brake pads as a set.



1. Brake pad wear indicator groove

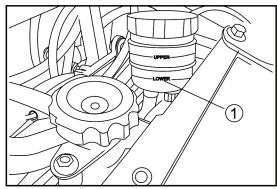
Checking the Brake Fluid Level

Insufficient brake fluid may let air enter the brake system, possibly causing the brakes to become ineffective.

Before riding, check that the brake fluid is above the minimum level mark and replenish if necessary. A low brake fluid level may indicate worn brake pads and/or brake system leakage. If the brake fluid level is low, be sure to check the brake pads for wear

and the brake system for leakage.

The brake fluid reservoir is located under the hood. (See pages 8-7—8-8 for hood opening and closing procedure.)



1. Minimum level mark

Observe these precautions:

 When checking the fluid level, make sure the top of the brake fluid reservoir is

level

 Use only the recommended quality brake fluid. Otherwise, the rubber seals may deteriorate, causing leakage and poor braking performance

Recommended brake fluid: DOT 4

- Refill with the same type of brake fluid. Mixing fluids may result a harmful chemical reaction and lead to poor braking performance.
- Be careful that water does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
- Have a dealer inspect the brake system if the brake fluid level goes down.

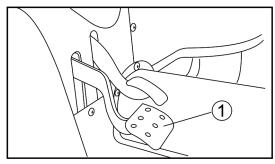
Brake Fluid Replacement

Complete fluid replacement should be done only by trained service personnel. Have a dealer replace the following components during periodic maintenance or when they are damaged or leaking.

- Replace the oil seals every two years.
- Replace the brake hoses every four years.

Checking the Brake Pedal

Have a dealer check the brakes at the intervals specified in the periodic maintenance and lubrication chart. There should be no free play in the brake pedal. The brakes should operate smoothly and there should be no brake drag. If the brakes feel soft or spongy, this could indicate air in the brake system. Have a dealer check the brake system if necessary.



Brake pedal

▲ WARNING

POTENTIAL HAZARD

Operating with improperly serviced or adjusted brakes.

WHAT CAN HAPPEN

You could lose braking ability, which could lead to an accident.

HOW TO AVOID THE HAZARD

After servicing:

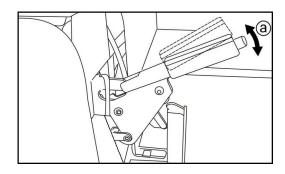
- Make sure the brakes operate smoothly and that the brake pedal position is correct.
- Make sure the brakes do not drag.
- All air must be bled from the brake system.

Replacement of brake components requires professional knowledge. These procedures should be performed by a dealer.

Parking brake lever free play adjustment

Periodically check the parking brake lever free play and adjust it if necessary.

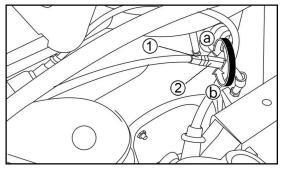
- Shift the drive select lever into low gear "L".
- Remove the seats. (See pages 4-16— 4-17 for seat removal and installation procedures.)
- 3. Remove the console. (See page 8-9 for console removal and installation procedures.)
- 4. Check the parking brake lever free play. The maximum free play is equal to one click of the parking brake lever. If necessary, adjust the free play as follows.



NOTE:

The parking brake lever must be released when checking and adjusting the parking brake lever free play.

5. Loosen the locknut.



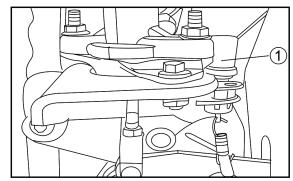
1. Locknut 2. Adjusting ntu

- 6. Turn the adjusting nut in direction ⓐ to increase the free play or in direction ⓑ to decrease the free play.
- 7. Tighten the locknut.
- 8. Install the console.
- 9. Install the seats.

Brake Light Switch Adjustment

The brake light switch, which is activated by the brake pedal, is properly adjusted when the brake light comes on just before braking takes effect. If necessary, adjust the brake light switch as follows.

- 10. Open the hood. (See pages 8-7—8-8 for hood opening and closing procedure.)
- 11. Turn the adjusting nut while holding the brake light switch in place. To make the brake light come on earlier, turn the adjusting nut in direction ⓐ. To make the brake light come on later, turn the adjusting nut in direction ⓑ.



1. Brake light switch.

2. Adjusting nut

Cable Inspection and Lubrication

▲ WARNING

POTENTIAL HAZARD

Damaged control cables.

WHAT CAN HAPPEN

Corrosion can result when the outer covering of control cables becomes damaged. Cables can also become frayed or kinked. Operation of controls could be restricted, which could cause an accident or injury.

HOW TO AVOID THE HAZARD

Inspect cables frequently. Replace damaged cables.

Lubricate the inner cables and the cable ends. If the cables do not operate smoothly, ask a dealer to replace them.

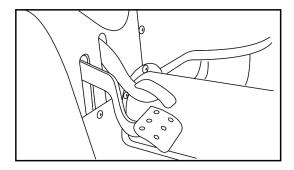
Recommended lubricant:

Engine oil: see page 10-2

Brake Pedal and Accelerator Pedal Lubrication

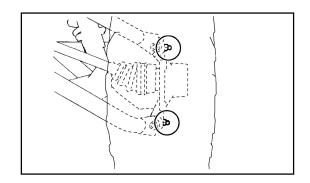
Lubricate the pivoting parts.

Recommended lubricant: Lithium-based grease (all-purpose grease)



Rear Knuckle Upper and Lower Pivot Lubrication

Lubricate the knuckle upper and lower pivots with a grease gun.



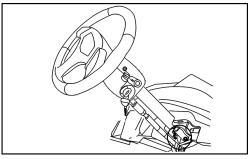
Recommended lubricant: Lithium-based grease

Steering Shaft Lubrication

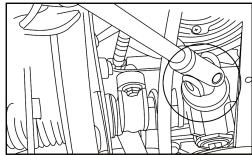
Lubricate the pivot points.

Recommended lubricant: Lithium-based grease (all-purpose grease)

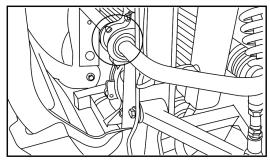
upper universal joint ,steering transmitssion shaft



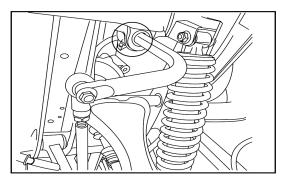
lower universal joint ,steering transmitssion shaft



front balance rod



rear balance rod



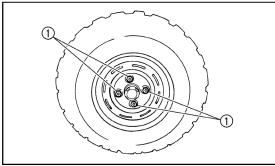
Wheel Removal

Loosen the wheel nuts.

Elevate the vehicle and place a suitable stand under the frame.

Remove the nuts from the wheel.

Remove the wheel.



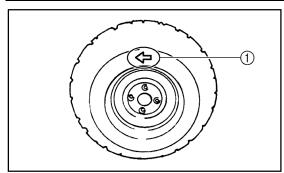
1. Nut (x4)

Wheel Installation

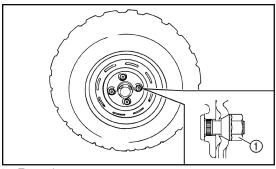
1. Install the wheel and the nuts.

NOTE:

- The arrow mark ← on the tire must point toward the rotating direction of the wheel.
- Tapered nuts are used for both the front and rear wheels. Install the nut with its tapered side towards the wheel.



1. Arrow mark



1. Tapered nut

- 2. Lower the vehicle so that the wheel is on the ground.
- 3. Tighten the wheel nuts to the specified torque.

Wheel nut torque:

Front: 70Nm (7.0 m·kgf, 49.7 ft·lbs) Rear: 70Nm (7.0 m·kgf, 49.7 ft·lbs)

Battery

This vehicle is equipped with a sealed-type battery. Therefore it is not necessary to check the electrolyte or add distilled water in the battery. If the battery seems to have discharged, consult a dealer.

CAUTION:

Do not try to remove the sealing caps of the battery cells. You may damage the battery.

WARNING

POTENTIAL HAZARD

Failure to handle batteries or battery electrolyte carefully.

WHAT CAN HAPPEN

You could be poisoned. You could be severely burned by the sulfuric acid in battery electrolyte. Batteries produce explosive gases.

HOW TO AVOID THE HAZARD

Avoid contact with skin, eyes or clothing. Always shield eyes when working near batteries. Keep out of reach of children.

Antidote:

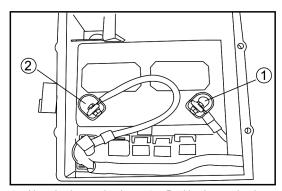
EXTERNAL: Flush with water.

INTERNAL: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Get prompt medical attention.

EYES: Flush with water for 15 minutes and get prompt medical attention. Keep batteries away from sparks, flames, cigarettes or other sources of ignition. Ventilate when charging or using in a closed space.

Battery Maintenance

- When the vehicle is not used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reinstallation.
- 2. Always make sure the connections are correct when putting the battery back in the vehicle.



1. Negative battery lead

2. Positive battery lead

CAUTION:

A special battery charger (constant voltage/ampere or constant voltage) is required for recharging a sealed-type battery. Using a conventional battery charger may shorten the battery life.

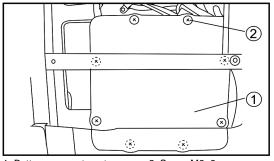
Fuse Replacement

The main fuse and the fuse box are located under the hood. (See pages 8-7-8-8 for hood opening and closing procedures.)

If a fuse is blown, turn off the ignition switch and install a new fuse of the specified amperage.

If a fuse is blown, replace it as follows.

1. Remove the battery compartment cover by lifting it up and pulling it out.



1. Battery compartment cover 2. Screw M6×8

2. Turn the key to "OFF" and turn off the electrical circuit in question.

CAUTION:

To prevent accidental short-circuiting, turn off the ignition switch when checking or replacing a fuse.

WARNING

OTENTIAL HAZARD

Using an improper fuse

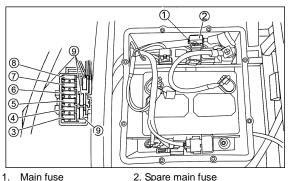
WHAT CAN HAPPEN

An improper fuse can cause damage to the electrical system, which could lead to a fire.

HOW TO AVOID THE HAZARD

Always use a fuse of the specified rating. Never use a material in place of the proper fuse.

3. Remove the blown fuse, and then install a new fuse of the specified amperage.



4. Ignition fuse

- Main fuse
 - Headlight fuse
- Auxiliary DC jack fuse
- Four-wheel-drive motor fuse
- Signaling system fuse
- Backup fuse (for odometer and clock)
- Carburetor warmer fuse
- 10. Spare fuse (x3)

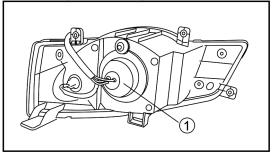
Specified Fuse: Main Fuse: 30.0A Headlight Fuse: 15.0A Ignition Fuse: 10.0A Auxiliary DC Jack Fuse: 10.0A Signaling System Fuse: 10.0A Carburetor Warmer Fuse: 10.0A Four-Wheel-Drive Motor 3.0A Fuse: Backup Fuse: 10.0A

- 4. Turn the key to "ON" and turn on the electrical circuit in question to check if the device operates.
- 5. If the fuse immediately blows again, have a dealer check the electrical system.
- 6. Install the battery compartment cover.
- 7. Close the hood.

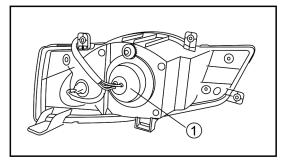
Replacing a Headlight Bulb

If a headlight bulb burns out, replace it as follows.

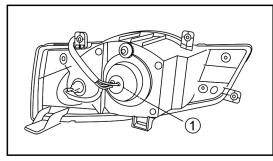
- 1. Lift the hood up. (See pages 8-7-8-8 for hood opening and closing procedures.)
- 2. Remove the cover at the rear of the headlight by pulling it off.



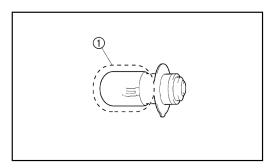
- 1. Cover at the rear of the headlight
- 3. Remove the headlight bulb holder cover by pulling it off.



- 1. Headlight bulb holder cover
- Remove the headlight bulb holder by pushing it in and turning it counter clockwise.
- 5. Remove the defective bulb by pulling it out.
- 6. Insert a new headlight bulb into the bulb holder by pushing it in.



1. Headlight bulb holder



1. Do not touch the glass part of the bulb.

WARNING

POTENTIAL HAZARD

A headlight bulb is hot when it is on and immediately after it is turned off.

WHAT CAN HAPPEN

You can be burned, or a fire could start if the bulb touches something flammable.

HOW TO AVOID THE HAZARD

Wait for the bulb to cool before touching or removing it.

CAUTION:

Do not touch the glass part of the headlight bulb to keep it free from oil, otherwise the transparency of the glass, the luminosity of the bulb, and the bulb life will be adversely affected. Thoroughly clean off any dirt and fingerprints on the headlight bulb using a cloth moistened with alcohol or thinner.

- 7. Install the bulb holder by pushing it in and turning it clockwise.
- 8. Install the bulb holder cover and the cover at the rear of the headlight.

CAUTION:

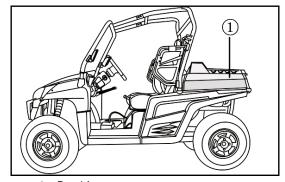
Make sure the headlight bulb holder cover is securely fitted over the bulb holder and seated properly.

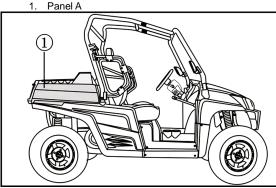
- 9. Close the hood.
- 10. Adjust the headlight beam if necessary.

Tail/Brake Light Bulb Replacement

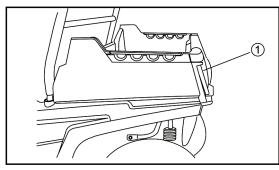
If a tail/brake light bulb burns out, replace it as follows:

1. Remove panel A (if replacing the left tail/brake bulb) or panel B (if replacing the right tail/brake bulb) by removing the quick fasteners and bolts.



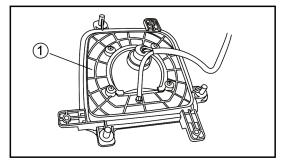


1. Panel B



1. Cargo bed

- 2. Remove the bulb holder (together with the bulb) by turning it counter clockwise.
- 3. Push the defective bulb in and turn it counter clockwise to remove it from the bulb holder.
- 4. Push a new bulb in and turn it clockwise to install in the bulb holder.
- 5. Install the bulb holder (together with the bulb) by turning it clockwise.



1. Tail/brake light bulb holder

6. Install the panel by installing the quick fasteners and bolts, and then tighten the bolts to the specified torque.

Tightening torque:

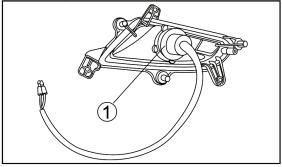
Panel bolt:

6.5N·m (0.65 m·kgf, 4.7 ft·lbs)

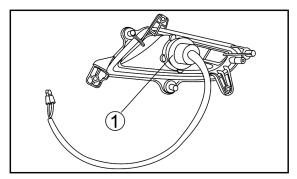
Replacing a Front Turning Light Bulb

If a front turning light bulb burns out, replace it as follows.

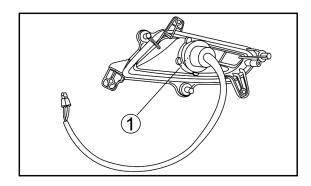
- 1. Lift the hood up. (See pages 8-7-8-8 for hood opening and closing procedures.)
- 2. Remove the cover at the rear of the front turning light by pulling it off.



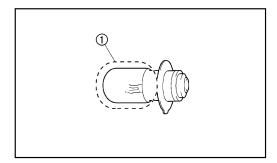
- 1. Cover at the rear of the front turning light
- 3. Remove the front turning light bulb holder cover by pulling it off.



- 1. Front turning light bulb holder cover
- Remove the front turning light bulb holder by pushing it in and turning it counter clockwise.
- Remove the defective bulb by pulling it out.
- 6. Insert a new front turning light bulb into the bulb holder by pushing it in.



1. Front turning light bulb holder

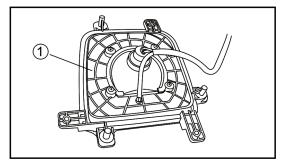


1. Do not touch the glass part of the bulb.

Replacing a Rear Turning Light Bulb

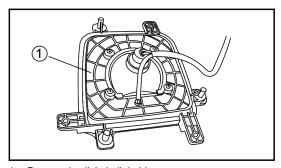
If a rear turning light bulb burns out, replace it as follows.

- 1. Lift the hood up. (See pages 8-7-8-8 for hood opening and closing procedures.)
- 2. Remove the cover at the rear of the rear turning light by pulling it off.



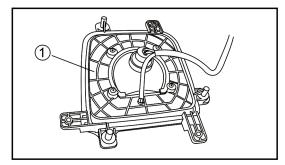
1. Cover at the rear of the rear turning light

3. Remove the rear turning light bulb holder cover by pulling it off.

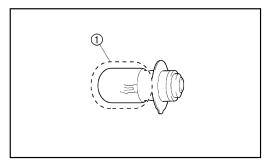


1. Rear turning light bulb holder cover

- 4. Remove the rear turning light bulb holder by pushing it in and turning it counter clockwise.
- 5. Remove the defective bulb by pulling it out.
- 6. Insert a new rear turning light bulb into the bulb holder by pushing it in.



1. Rear turning light bulb holder



1. Do not touch the glass part of the bulb.

Troubleshooting

Although vehicles receive a rigid inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks. If your vehicle requires any repair, take it to a dealer. The skilled technicians at a dealership have the tools, experience, and know how to properly service your vehicle. Imitation parts may look like original parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive

WARNING

POTENTIAL HAZARD

Checking the fuel system while smoking or near an open flame.

WHAT CAN HAPPEN

Fuel can ignite or explode, causing severe injury or property damage.

HOW TO AVOID THE HAZARD

Do not smoke when checking the fuel system. Make sure there are on open flames or sparks in the area, including pilot lights from water heaters of furnaces.

Check and solution to Common Problems in Vehicle

Here you can see some tables on the common problems which may come up when you are driving a UTV, which will help to solve these problems.

To repair a UTV requires technical skills, if you cannot fix it up yourself, please contact your dealer.

Table1: Check and Solution of Common Problems in Appearance parts and impact fittings.

S/N	Problems	Solutions
1	Covers are cracked up when go a crossing the field.	Covers are cracked up when go a crossing the field.
		2.Change for new plastic covers.
		3.Re-paste the stickers and re-rivet the warning lables.
2	Vehicle's bottom protect- tion plate is damaged by prominence on ground.	1.Check if the reduction gear box and differential in front and rear bridge are damaged or if there is any oil leakage.
		2.Check if the bottom of engine is damaged or if there is any oil leakage.
		3.Change for new bottom protection plate.

Table 2: Check and Solution of Common Problems in Brake System .

S/N	Problems	Solutions
1	Brake system is locked up.	1.Check if the handle of parking brake return to its position.
		2.Check if the brake discs are deformed.
		3. Check if the calipers' hydraulic cylinders get stuck, or the fixing parts of calipers are deformed.
	2 brake performance goes down.	1.Check if the brake disc are over-worn.
		2.Check if the brake block in calipers are over-worn, or contaminated by stuffs which can reduce friction.
2		 Check if there is any leakage in brake system's oil lines or conjunctions.
		4.Check if the post rod in brake master cylinder is deformed.
		5.Check if there is any air go into the oil lines, and drain the air with special equipment.
		6.Check if the remain oil in master cylinders of front and rear brake is still above the lowest level.
3	Front or rear brake system makes affricate noise, or the brake discs go.	1.Check if the brake discs are deformed.
		2.Check if the calipers' hydraulic cylinders get stuck, or the fixing parts of calipers are deformed.

S/N	Problems	Solutions
4	Vehicle go deflected when braked at high speed.	1.Check if left & right brake force' deviation of front brake is with specified limit. 2.Check if the brake force of front brake go down, which cause the rear wheels are locked up before the front wheels when braked. 3.Check if spring force's deviation of shock absorbers in front left & right suspension are within specified limit. 4.Check if the damper rubber sleeves connecting front suspension rock and frame are damaged.

Table 3: Check and Solution of Common Problems in Electrical System

S/N	Problems	Solutions
	Lamps don't work.	1.check if the headlight switch functions well.
1		2.Check if the wires are broken.
		3.Check if the lamps or bulbs are broken.
		Check if the control switch on meter board works well.
2	Vehicle cannot go into 4 drive mode.	 Check if the differential lock control magneto plug in rear bridge reduction gear box are broken.
		3.Check if the wire is broken.
3	rear differential won't work.	1.Check if the control switch on meter board works well.

S/N	Problems	Solutions
3	rear differential won't work.	2.Check if the differential lock control magneto plug in rear bridge reduction gear box are broken.
	WOIK.	3.Check if the wire is broken.
		1.Check if the sensor is broken.
1	Meter display abnormal-	2.Check if the meter is broken.
	ly.	Check if the surface of speed sensor is contamniated with iron dust.
	Start quitab an mater	1.Check if the switch is broken.
5	Start switch on meter board won't work	2.Check if the wire is broken.
	Board Work	3.Check if the ECU in electrical injection system is broken.

Table 4: Check and Solution of Common Problems in Running System

S/N	Problems	Solutions
1	Swing clearance of stee- ring wheel is too big	1.Check the fix screws connecting steering rod to steering stem and knuckle to find out if they are loose or broken 2.Check the bulbs on the ends of steering rod to find out if they are broken 3.Check the clearance between gears of steering machine if it is too big.
2	Front wheels shake seriously in running.	1.Check the bearings in knuckles if they are broken.

S/N	Problems	Solutions
2	Front wheels shake seriously in running.	2.Check the main ball pins to find out if they are broken.
		3. Check the lock screws of front wheels and axles to find out if they are loose or broken.
		4.Check the inner splines of front wheel hubs and outer splines of front wheel axles to find out if they are worn or broken.
		5. Check rubber bushs betweenthe front suspension rocks and frame to find out if they are broken.
	Rear wheels shake seriously in running.	 Check the bearing in rear bridge bearing seat to find out if they are broken.
		2.Check the sliding bearing connecting rear bridge and rocks to find out if they are worn or loose.
3		3.Check the inner splines of rear wheel hubs and outer splines of rear wheel axles to find out if they are worn or broken.
		4.Check the lock screws of rear wheels and axles to find out if they are loose or broken.
		5.Check rubber bushs between the rear suspension rock and frame to find out if they are broken.
	Wheels jump seriously in running.	1.Check if the rims are deformed.
4		2.Check if the rear wheel axles are bent.
		3.Check if the tyres are worn or deformed.

S/N	Problems	Solutions
5	Shock absorbers become soft and not comfort-table in running.	1.Check if overloaded. 2.Check if the springs are two soft after after long time running.
		3. Check if the shock absorbers lose their damping force in their travel.
6	Front bridge makes noise in running.	 1.Check if the spline of intermediate driving shaft is broken. 2.Check if the splines in left & right drive shafts of front & rear bridges are broken. 3.Check if the gears in rear bridge reduction gear box and
	noise in running.	differential are over worn. 4.Check the dust cover of constant velocity universal joint in right & left drive shafts.

Table5: Check and Solution of Common Problems in Engine System

S/N	Problems	Solutions
	Idle speed can not be adjusted	Check the throttle cable for seizure
		2. Check the adjustment knob of carburetor for damage or
1		wear
		3.Check the needle of carburetor to see if it can be placed
		to the bottom
		1.Check the battery voltage for Within specified value
2	Idle speed is not stable	2.Check the rectifier output voltage for within specified value
		3.Check MEUI for failure
	Power performance is falling	Check if there is one cylinder not working.
3		2.Check gasoline nozzle for block
3		3.Check and clean core of air cleaner
		4.Check muffler for partly block and clean spark arrestor
		Check air cleaner and admission line for leak.
4	Popping in engine	Check the connection joint of exhaust pipe with engine or muffler for leak
		3.Check the grade of gasoline to see if it's too low
	Facing in difficult to the f	1.Check if the battery voltage goes down when
5	Engine is difficult to start at low temperature	temperature goes down 2.If the temperature is under -18°C, have the vehicle placed
		in warmer place for start.

S/N	Problems	Solutions
	Coolant boils	1.Check the cooling fin of radiator for blocked by soil or dirt
6		2.Check the speed sensor of radiator for damage and Check fan for failure
0		3.Check if antifreeze can meet the requirement stated in the owner manual.
		4.Check the coolant loop for mixed with air
	Engine can not start	1.Check the battery ,which with low electricity may cause the motor failure
		2.Check the starting motor for damage
		3.Check if MEUI can work in good condition
_		4.Check if the ignition loop can work in good condition
7		5.Check if the spark plug is foulled or burned
		6.Check if the ignition signal is in good condition
		7.Check if the air cleaner is blocked
		8.Check if the oil circuit is smooth
		9.Check if the exhaust system is blocked
	Horn not work	Check horn function: normal or unnormal.
8		2. Check cable damaged or not Check patch connected or
		not.
		3. Check the speaker: damage or not.

▲ WARNING

POTENTIAL HAZARD

Removing the radiator cap when the engine and radiator are still hot.

WHAT CAN HAPPEN

You could be burned by hot fluid and steam blown out under pressure.

HOW TO AVOID THE HAZARD

Wait for the engine to cool before removing the radiator cap. Always use a thick rag over the cap. Allow any remaining pressure to escape before completely removing the cap.

NOTE:

If it is difficult to get the recommended coolant, tap water can be temporarily used, provided that it is changed to the recommended coolant as soon as possible.

SPECIFICATIONS

Model	800UTV-EC
Dimensions:	
Overall length	2,700mm (106.3 in)
Overall width	1,360mm (53.5in)
Overall height	1,840mm (73.2 in)
Seat height	800mm (31.5 in)
Wheelbase	1,940mm (76.4 in)
Ground clearance	260 mm (10.2 in)
Minimum turning radius	6,730 mm (265 in)
Basic weight:	526.0 kg (1,508 lb)
With oil and full fuel tank	
Engine:	
Engine type	4-stroke, Water cooled
Cylinder arrangement	V type twin cylinder
Displacement	800cm3
Bore × stroke	91×61.5mm
Compression ratio	9.5:1
Starting system	Electric starter
Lubrication system	Wet sump

Model	800UTV-EC
Engine oil: Type Recommended engine oil classification	-4° 14° 32° 50° 68° 86° 104° 122°F
Quantity: Without oil filter cartridge replacement With oil filter cartridge replacement	1.90L (1.67Imp qt, 2.01 US qt) 2.00L (1.76Imp qt, 2.11 US qt)

Model	800UTV-EC
Final gear case oil:	
Туре	SAE80 API GL-4 Hypoid gear oil
Quantity:	0.40L (0.35 lmp qt, 0.41 US qt)
Differential gear case oil:	
Туре	SAE80 API GL-5 Hypoid gear oil
Quantity:	0.10L (0.08 lmp qt, 0.1 US qt)
Radiator capacity (including all routes):	2.50L (2.20 lmp qt, 2.64 US qt)
Air filter:	Wet element
Fuel:	
Туре	Unleaded gasoline only
Fuel tank capacity	29.0L (6.38 lmp gal, 7.67 US gal)
Throttle valve:	
Type/quantity	
Spark plug:	
Туре	
Spark plug gap	0.8-0.9 mm (0.031-0.035 in)
Clutch type:	Wet, centrifugal automatic

Model		800UTV-EC
Transmission:		
Primary reduction system		CVT-belt
Secondary reduction system		Shaft drive
CVT reduction ratio		0.68-2.7
Transmission type		CVT-belt automatic
Operation		Right hand operation
Reverse gear		5.45
Sub transmission ratio	Low	5.29
	High	2.866
Chassis:		
Frame type		Steel tube frame
Caster angle		1.0°
Trail		26.0mm (1.02 in)
Tire:		
Туре		Tubeless
Size	Front	25×8-12NHS
	Rear	25×10-12NHS

M	lodel	800UTV-EC
Brakes:		
System		Front and rear unified
Туре	Front	Dual disc brake
	Rear	Dual disc brake
Operation		Foot operation
Suspension:		
Front suspension		Double wishbone
Rear suspension		Double wishbone
Shock absorber:		
Front shock absorber		Coil spring/oil damper
Rear shock absorber		Coil spring/oil damper
Wheel travel:		
Front wheel travel		130mm (5.9 in)
Rear wheel travel		150mm (6.8 in)
Electrical:		
Ignition system		ECU
Generator system		AC magneto
Battery type		U1L-11
Battery capacity		12V32Ah
Headlight type:		Krypton bulb

Model	800UTV-EC
Bulb voltage, wattage × quantity:	
Headlight	12V35.0W/35.0W × 2
Tail/brake light	12V5.0W/21.0W × 2
Front/Rear turning light	12V10.0W/10.0W × 2
License light	12V3.0W
Indicator lights:	
Neutral indicator light	LED
Reverse indicator light	LED
Coolant temperature warning light	LED
Parking brake indicator light	LED
Diff-lock indicator	LED
On-Command differential gear lock indicator light	LED
High-range indicator light	LED
Low-range indicator light	LED
Specified fuses:	
Main fuse	30.0A
Headlight fuse	15.0A
Ignition fuse	10.0A
Auxiliary DC jack fuse	10.0A
Four-wheel-drive motor fuse	10.0A
Signaling system fuse	10.0A
Backup fuse	10.0A

Fault Code of Electronic Injection System

DTC Number	DTC Description	Related Calibration	HEX	DEC
P0107	MAP Circuit Low Voltage or Open	KsDGDM_MAP_ShortLow	107	263
P0108	MAP Circuit High Voltage	KsDGDM_MAP_ShortHigh	108	264
P0112	IAT Circuit Low Voltage	KsDGDM_IAT_ShortLow	112	274
P0113	IAT Circuit High Voltage or Open	KsDGDM_IAT_ShortHigh	113	275
P0117	Coolant/Oil Temperature Sensor Circuit Low Voltage	KsDGDM_CoolantShortLow	117	279
P0118	Coolant/Oil Temperature Sensor Circuit High Voltage or Open	KsDGDM_CoolantShortHigh	118	280
P0122	TPS Circuit Low Voltage or Open	KsDGDM_TPS_ShortLow	122	290
P0123	TPS Circuit High Voltage	KsDGDM_TPS_ShortHigh	123	291
P0131	O2S 1 Circuit Low Voltage	KsDGDM_O2_1_ShortLow	131	305
P0132	O2S 1 Circuit High Voltage	KsDGDM_O2_1_ShortHigh	132	306

P0031	O2S Heater Circuit High Voltage	KsDGDM_O2_HeaterShortHigh	31	49
P0032	O2S Heater Circuit Low Voltage	KsDGDM_O2_HeaterShortLow	32	50
P0201	Injector 1 Circuit Malfunction	KsDGDM_INJ_CYL_A_Fault	201	513
P0202	Injector 2 Circuit Malfunction	KsDGDM_INJ_CYL_B_Fault	202	514
P0230	FPR Coil Circuit Low Voltage or Open	KsDGDM_FPP_CircuitShortLow	230	560
P0232	FPR Coil Circuit High Voltage	KsDGDM_FPP_CircuitShortHigh	232	562
P0336	CKP Sensor Noisy Signal	KsDGDM_CrankNoisySignal	336	822
P0337	CKP Sensor No Signal	KsDGDM_CrankNoSignal	337	823
P0351	Cylinder 1 Ignition Coil Malfunction	KsDGDM_EST_A_Fault	351	849
P0352	Cylinder 2 Ignition Coil Malfunction	KsDGDM_EST_B_Fault	352	850
P0505	Idle Speed Control Error	KsDGDM_IdleControl	505	1285
P0562	System Voltage Low	KsDGDM_SysVoltLow	562	1378
P0563	System Voltage High	KsDGDM_SysVoltHigh	563	1379
P0650	MIL Circuit Malfunction	KsDGDM_MIL_Circuit	650	1616
P1693	Tachometer Circuit Low Voltage	KsDGDM_TAC_Circuit_Low	1693	5779

P1694	Tachometer Circuit High Voltage	KsDGDM_TAC_Circuit_High	1694	5780
P0137	O2S 2 Circuit Low Voltage	KsDGDM_O2_2_ShortLow	137	311
P0138	O2S 2 Circuit High Voltage	KsDGDM_O2_2_ShortHigh	138	312
P0038	O2S Heater 2 Circuit High Voltage	KsDGDM_O2_HeaterShortHigh	38	56
P0037	O2S Heater 2 Circuit Low Voltage	KsDGDM_O2_HeaterShortLow	37	55
P0500	VSS No Signal	KsDGDM_VSS_NoSignal	500	1280
P0850	Park Neutral Switch Error	KsDGDM_ParkNeutralSwitch	850	2128
P0445	CCP short to high	KsDGDM_CCP_CircuitShortHigh	445	1093
P0444	CCP short to low/open	KsDGDM_CCP_CircuitShortLow	444	1092
P0171	BLM Max Adapt(Kohler Special)	KsFDIAG_BLM_MaxAdapt	171	369
P0172	BLM Min Adapt(Kohler Special)	KsFDIAG_BLM_MinAdapt	172	370
P0174	PE System Lean(Kohler Special)	KsFDIAG_PESystLean	174	372